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OBJECTIVES: Diabetes is challenging to manage, with poorly controlled disease having a serious impact on patients' overall well-being. Individuals vary in interpersonal characteristics and their ability to be self-reliant, termed as attachment style. Attachment theory provides the conceptual framework for these interpersonal differences that can lead to differences in seeking care and disease management. The objective of this study is to assess if variation in attachment style is associated with social support, self-care, and diabetes-related quality of life (QOL) in Veterans. METHODS: Patients seeking care at the local VHA during FY 2010 with a recorded HbA1c level were randomly selected from administrative data, and surveys mailed. 126(38%) respondents returned surveys. Self administered survey included validated measures on diabetes self-care, diabetes-related QOL (Diabetes-39), medication adherence, social support, and patients experience with the healthcare system (EHC). Attachment style measured using the Relationship Style Questionnaire, scores individuals on continuum using two models, self-model, and others-model. Higher score on self-model indicates individuals with positive view of self, while higher score on others-model indicates positive view of others. Linear regression was used to assess association of health outcomes with attachment style. RESULTS: Participants were predominantly white (63%), married (60%), and did not depend on a family member or friend for daily activities (83%). 63% of diabetics had at least one family member diagnosed with diabetes. Individuals with high social support reported better EHC, more frequent glucose monitoring, and greater medication adherence. More positive view of self was associated with lower diabetes-related distress, and higher diabetes-related QOL. More positive view of others was associated with better social support. Results for attachment style held even after adjusting for age, gender, race, and education (p<0.05). CONCLUSIONS: Social support varies by attachment style which could affect diabetes-related QOL. Interventions to improve diabetes-care should consider patients' attachment style.

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ASSOCIATION OF SELF-CARE BEHAVIOR IN DIABETES WITH HEALTH RELATED QUALITY OF LIFE (HRQOL): BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS) STUDY

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OBJECTIVES: Self-care in diabetes can avoid the risk of serious complications and also influence a person's HRQOL. This study examined the association of self-care behavior with four measures of HRQOL-General Heath, Physical Distress, Mental Distress and Activity Limitations in diabetic patients. METHODS: Data of noninstitutionalized US population aged 18 years or older was obtained from 2010 BRFSS. A total of 4996 individuals who reported diabetes and all the four measures of HRQOL were used in the study. Self-care behavior comprised of both, Self-Monitoring of Blood Glucose (SMBG) and self foot-care carried out atleast once a day. RESULTS: Of 4996 diabetic patients, SMBG was performed daily by 77.28% and self foot-care was done daily by 73.32%. Yet, less than half (41.17%) of diabetic patients had a self-care behavior (SMBG and self-foot care both on a daily basis). Diabetic patients without self-care behavior were significantly more likely than diabetic patients with self-care behavior to report fair/poor General Health (82.48% vs. 75.35%, p<0.0001); Frequent (≥ 14 days in past 30 days) Physical Distress (71.66% vs. 64.03%, p<0.0001); Frequent Mental Distress (56.65% vs. 52.99%, p= 0.0104) and Frequent Activity Limitations (64.04% vs. 56.10%, p<0.0001). Self-care behavior was significantly associated with all the four measure of HROOL in non-institutionalized diabetic patients aged 18 years or above. **CONCLUSIONS:** Self-care behavior is of utmost importance in diabetes as it can delay the progression of this lifestyle disease. Impaired HRQOL was reported significantly more in those diabetic patients without a self-care behavior as compared to those with it. Incorporating SMBG and self foot-care on a day to day basis can facilitate to keep diabetes under control and even improve HRQOL.

EFFECT OF DIABETES PATIENT CHARACTERISTICS ON THE WILLINGNESS-TO-PAY FOR A NEW BASAL INSULIN – A DISCRETE CHOICE EXPERIMENT

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OBJECTIVES: Despite the advances made with the introduction of basal insulin analogs, many diabetes patients still achieve inadequate glycemic control, and could benefit from new basal insulin. This study evaluated the effect of patient characteristics on the willingness to pay (WTP) for a hypothetical new basal insulin among patients with type 2 diabetes mellitus (T2DM), METHODS: A discrete choice experiment survey was designed to assess patient preferences. Using a US-representative household panel, the survey was administered online to 600 adult T2DM patients. Preferences were tested concerning hypoglycemia events risks, diabetes control, injection frequency, injection timing flexibility, and blood glucose monitoring frequency. Random effects probit models were used for data analysis. Incremental WTPs vs. existing basal insulin therapies by patient characteristics (i.e., age, gender, race, urban status, income level, insurance, perceived diabetes control and insulin treatment satisfaction) were expressed either in terms of monthly copayment or health insurance contribution. RESULTS: The average patient's incremental WTP was \$59.0 via copayment and \$89.3 via health insurance contribution for a new basal insulin that reduces hypoglycemia events risks (by 25% for overall and 40% for night-time), injection frequency (from some twice daily use to none), and increases injection flexibility (e.g., up to 2 days gap between consecutive injections). Older patients (age ≥65 years) were willing to pay more than younger

patients (+\$20.6 via copayment, p=0.025), and so were patients with higher household income i.e. \geq \$35K (+\$21.1, p<0.1). No other significant differences were observed for other patient characteristics. Incremental WTPs for patients who perceived their diabetes in complete control, or patients who were very dissatisfied with insulin therapy were low (e.g. <\$40 via copayment), but differences were not significant. CONCLUSIONS: Although adult T2DM patients appear to value fairly consistently the attributes of a new hypothetical basal insulin, elderly patients seem to have particularly high valuations.

VALUE OF A DIABETES PREVENTION PROGRAM IN RURAL KENYA: COMPARING PAYMENT CARD AND STRUCTURED HAGGLING WILLINGNESS TO PAY METHODS

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OBJECTIVES: Diabetes is a preventable disease with prevalence in Kenya considered on par with Western countries. Diabetes prevention and care is especially important in nonwestern countries because of the high costs and health burden associated with the acute care model of treatment, however it is unknown how rural residents will perceive such a program. Study objective was to value a diabetes prevention program (education, screening and referral) by comparing two willingness to pay (WTP) techniques in rural Kenya: the commonly used payment card (PC) and the recently developed structured haggling (SH), considered more consistent with Sub-Sahara African culture. METHODS: Convenience sample of adult residents from a rural county in Kenya (Kiambu) were randomized to one of two WTP techniques, SH (Onwujekwe 2004) and PC. Program benefits (WTP data) were collected via individual face-to-face interviews. Ex-ante approach was used assuming: societal perspective, 5 year project life, and 3% discount rate. RESULTS: WTP data was collected from 158 rural residents (70% male, 2.5% diabetic, 11% own a vehicle and mean monthly expenditures of Ksh10,933 (US2011\$ 127.12). Annual mean (SEM) WTP for the prevention program was Ksh628.75 [US2011\$7.30] (70.98) for PC and Ksh 683.97 [US2011\$7.95] (45.52) for SH per respondent per year, p=.516. Bids ranged from Ksh 0 to 5000. Assuming the program benefits 4800 rural adults, the program WTP is estimated at a mean of Ksh 14,420,838 (US2011\$167,684). CONCLUSIONS: Diabetes prevention program have been shown to be effective in other countries. In the present study rural Kenyan residents did value a diabetes prevention program favorably. This is the first published study comparing PC and SH, however no statistical difference was perceived between the two WTP methods. As part of a larger study the benefits and costs will be compared to estimate the net societal benefit of the prevention program in rural Kenya.

FACTORS INFLUENCING THE SPENDING ON HERBAL REMEDIES BY THE PATIENTS WITH TYPE 2 DIABETES MELLITUS IN THE CENTRAL REGION OF INDIA

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OBJECTIVES: To use a model of adoption for determining various factors that influence the willingness of patients to spend more on herbal remedies that are useful in diabetes. METHODS: In this study, survey forms were provided to 1500 patients with type 2 diabetes in 9 major government hospitals of cantral region of India. The patients included in the survey were aged 20 or older and residing in 2major central states of India (Madhya Pradesh & Chhattisgarh). The independent variables were patient characteristics, types of herbal therapies, social systems and communication mediums. The dependent variable was the amount spending with responses divided into monthly spending of Indian Rupee (INR) 250 (≈\$5) or less and more than INR 250 (≈\$5). Binary logistic regression was performed to examine the relationship between variables of adoption model and amount spent on herbal remedies. RESULTS: Out of the 1500 survey forms provided to the patients there were 85 incomplete surveys and 29 survey forms were not returned back by the patients. Thus, there were 1386 usable returned surveys. A total of 984 (71%) patients reported using herbal remedies useful in diabetes. The logistic regression was done using the 786 (56.7%) patients who spent money on herbal remedies in last one month. The overall regression was significant (P<0.05). The major influences on spending money on herbal remedies were over-the-counter (OTC) drug use, age of the patients, advertisements, consultation with the physicians practicing traditional medicine. The patients who consulted with physicians practicing traditional medicine tend to spend 6.2 times higher on herbal remedies as compared to those who do not consult. Patients aged 40 or older reported spending more on herbal remedies in comparison with younger patients. CONCLUSIONS: Patients having information about herbal remedies from physicians and OTC drug use was positively related to spending on herbal remedies that are beneficial in diabetes. A model of adoption can be a useful tool in similar studies

DIABETES/ENDOCRINE DISORDERS - Health Care Use & Policy Studies

DIABETES MEDICATION USAGE PATTERNS IN GEOGRAPHIES WITH HIGH HISPANIC POPULATIONS IN THE UNITED STATES

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OBJECTIVES: To determine whether culturally relevant diabetes education is warranted for US geographies with high Hispanic populations. Examine differences in