AN EXAMINATION OF THE CORRELATION BETWEEN QUALITY OF PATIENT CARE AND PATIENT RACE OR SOCIAL CLASS IN INPATIENT APPENDECTIS CASES
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OBJECTIVE: It is the purpose of this study to examine the relationship between hospital stays and a patient’s race or social class with respect to the occurrence of appendicitis. These cases are drawn from the Health Care Cost and Utilization Project of the 2004 Nationwide Inpatient Sample (NIS). METHODS: We consider three outcomes: the amount of total charges the patient incurs; the length of the patient’s stay; and whether or not the patient died. The sample was taken from 12,432 inpatient appendicitis cases from a 10% sample of the NIS. We used Kernel Density Estimates and multiple Logistic Regression Analyses to examine outcomes versus patient demographics and risk factors. Linear Regression Analysis examined charges and stay. RESULTS: Patients in the second income quartile had the lowest total charges, but the highest rate of death. White patients had some of the lowest total charges, but again, the highest rate of death. There was no direct relationship between Patient Death and Race, Zip Code Income Quartile, Insurance or Primary Diagnosis. There was also no relationship between Length of Stay and Race, Zip Code Income Quartile, or Insurance. The Primary Diagnoses found to be directly related to Length of Stay were Rickettsial Malignant Neoplasm, Volume Depletion, Hypotension, Unspecified Anemia, Unspecified Congestive Heart Failure, Appendicitis with Generalized Peritonitis, Acute Appendicitis with Peritoneal Abscess, Other Specified Gastritis, and all others combined. The remaining diagnoses—Pure Hypercholesterolemia and Diaphragmatic Hernia—were both inversely related to Length of Stay. However, no direct correlation may be seen between the quality of health care and minority race or lower social class. CONCLUSION: In the end, it seems that demographic characteristics have little or no effect on quality of care in appendicitis cases. Length of Stay is largely determined, not surprisingly, by the patient’s primary DRG code.

INFECTION—Patient-Reported Outcomes

RANDOMIZED CONTROLLED TRIAL OF TELEPHONE, EMAIL AND TEXT MESSAGING REMINDERS ON PATIENT COMPLIANCE WITH ANTIBIOTIC REGIMEN
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OBJECTIVE: Using the Health Belief Model (HBM) as a conceptual framework, this study tested whether telephone, email, or cell phone text messaging follow-up increased patient compliance with prescribed antibiotic therapy. METHODS: A randomized controlled trial was employed in a convenience sample of 201 patients receiving a new prescription for a 10-day oral antibiotic at a university student health center pharmacy. Subjects first completed a survey on their health beliefs about antibiotic-taking. They were then randomized into one of three intervention groups (telephone, email, or text messaging follow-up) or a control group. Those in the intervention groups either received a telephone, email, or text message reminder on the 4th day of the antibiotic regimen. On the 9th day, every subject was interviewed over the phone on their antibiotic-taking behaviors. Compliance was defined as at least 90% of antibiotic consumption. Chi-square and logistic regression analyses were used to assess the relationships between explanatory variables and subjects’ compliance with antibiotic regimen. RESULTS: One hundred and forty one subjects completed the study (telephone group = 33; email group = 35; text messaging group = 33; control group = 43) with the subject’s average age being 20.4 ± 2.1 years. Of those who completed the study, 75.9% complied with their antibiotic regimen (telephone group = 86.7%; email group = 68.6%; text messaging group = 72.7%; control group = 76.7%). No statistically significant differences were found in compliance rates between the four groups. However, subjects with lower perceived barriers (e.g., side-effects, regimen inconvenience), higher self-confidence, and greater intent in following the doctor’s directions were more likely to comply with their antibiotic regimen (p < 0.05). CONCLUSION: Although the compliance interventions in this study had a weak statistical effect on patients’ antibiotic compliance, assessment of the HBM components is useful in detecting patients at high risk of medication non-compliance.

ROLE OF DRUG DISTRIBUTION STRATEGIES TO IMPROVE HEALTH OUTCOME IN HIGH RISK PATIENTS
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OBJECTIVE: The objective of this study was to examine the effect of drug distribution methods, insurance type, and pharmacy access on antiretroviral adherence and persistence scores in HIV+ patients. METHODS: A longitudinal, retrospective study of patients ≥18 years old receiving antiretroviral therapy from January 1, 2004 to June 30, 2006 was collected from an independent pharmacy in Houston and followed for a period of five refills. Data collected included: demographics, drug distribution method (pick up vs. delivery), insurance type (public vs. private), and distance from pharmacy. A modified medication possession ratio was used to calculate adherence and persistence scores. Differences in adherence and persistence scores by groups were evaluated by conducting t-tests. The association between adherence and persistence scores with distance from pharmacy was analyzed using Spearman correlation analysis. RESULTS: Of 181 patients included in the analysis, 50% were male, average age 38.0 (SD 10.6) years. Patients who had medications delivered to their home (62%) had significantly greater adherence (95% vs. 81%; p < 0.0001) and persistence scores (78% vs. 51%, p < 0.0001) compared to those that picked up their medications. For patients who had public insurance (64%) and those who had private plans (36%), adherence (91% vs. 93%, p = 0.210) and persistence scores (67% vs. 68, p = 0.921) were similar. There were no significant associations between adherence (r = −0.19, p = 0.11) and persistence (r = −2133, p = 0.0776) with distance from pharmacy. No differences in adherence were seen for gender, age, or drug class, either. CONCLUSION: Medication delivery services increases adherence to antiretroviral therapy in HIV+ patients. These results were significant, irrespective to the insurance type they had or the distance of the pharmacy from a patient’s residence. Further research should be conducted to evaluate how such drug distribution strategies can be implemented universally and the economic impact on cost of care.

ASSESSMENT OF THE CROSS-CULTURAL VALIDITY OF AN HIV SYMPTOM DISTRESS MODULE IN AN INTERNATIONAL HIV CLINICAL TRIAL
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OBJECTIVE: To assess whether the Symptom Distress Module (SDM) developed by the AIDS Clinical Trial Group showed
cross-cultural validity in an international HIV clinical trial.

METHODS: The SDM was included in a Phase IIb/III trial to assess symptoms perceived by HIV-1-infected treatment-naive patients. The cross-cultural validity of 25 language versions of the SDM was assessed using baseline data of 759 patients from 3 treatment arms, each having received zidovudine and lamivudine in addition to one of the following: maraviroc 300 mg QD, maraviroc 300 mg BID (approved dose for treatment-experienced patients) and efavirenz 600 mg QD. Given the large number of versions, creating relatively homogeneous cultural groups was necessary for analysis. Seven cultural groups were defined according to language and geographical considerations: European Germanic, Polish, European Romance, Occidental American Spanish, Bantu and African Indo-European. The cross-cultural validity of the SDM was assessed by applying ordinal logistic regressions to detect Differential Item Functioning (DIF), and using the STATIS approach, which explores distances between item correlation matrices. RESULTS: Most items did not function differentially between cultural groups: only four symptoms showed DIF (fatigue, fevers, feeling anxious and headache) and the greatest cultural differences were observed for fatigue. The African Indo-European versions of the ASDM presented the highest number of differences from the other versions. With the STATIS approach, the Bantu and European Germanic groups were the furthest from the Occidental English but no clear meaningful difference was found in the expressed symptom pattern across cultural groups. CONCLUSION: Considering the substantial heterogeneity of cultures included in the study, these statistical findings, together with the rigorous methodology applied for the linguistic validation of the questionnaire, support the cross-cultural validity of the SDM. These findings also indicate that culture has a limited impact on the symptoms expressed by HIV-1-positive individuals starting antiretroviral therapy.

COMPLEMENTARY AND ALTERNATIVE MEDICATION USE AND ADVERSE EVENTS IN HIV-INFECTED PATIENTS

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OBJECTIVE: An estimated 29% to 91% of HIV-infected patients use complementary and alternative medications (CAM). The objective was to identify the most commonly used CAM by HIV-infected patients and determine the prevalence of associated adverse events (AEs). METHODS: A single-center, prospective, cross-sectional study was conducted from February to July 2007 via convenient sampling. Inclusion criteria were: HIV-positive adults and using at least one CAM in the prior 12 weeks. Patient information (including demographics, CAM use, concomitant medication use, CAM-related AEs, purchasing behavior) was obtained using self-administered questionnaire and personal interview techniques. This study was approved by the institution’s IRB and informed consent was obtained prior to enrollment. Descriptive statistics were performed to evaluate trends and assess AE outcomes (SAS Version 9.0). RESULTS: One hundred individuals participated in the survey, with a response rate of 71.9%. Subjects were 45.0(9.9) mean(SD) years, 70% male, 54% Black, 32% Caucasian, 8% Hispanic, and 2% Asian. Fifty-five percent had a current/previous AIDS diagnosis. Forty-eight different CAM were used, and 96% of respondents were taking concomitant antiretroviral medications. The most common CAM consumed were: cranberry juice (72%), vitamin C (37%), green tea (34%), and garlic (8%). Most respondents (87%) purchased herbal medications on their own, and mostly from the grocery store (56%). Sixty-four percent of respondents did not inform their providers about CAM use. Fifteen percent experienced AEs that were CAM-related. Nausea and vomiting (33%) were the most frequent AEs reported. Eighty-six percent of subjects experiencing AEs neither consulted their physicians nor stopped using CAM that were thought to cause the AE. CONCLUSION: HIV-infected patients frequently use CAM concomitantly with traditional antiretroviral medications. Physicians and pharmacists should document and provide adequate education/counseling regarding CAM, especially for HIV-infected patients, to prevent drug interactions and AEs. More studies are needed regarding CAM utilization, safety, and its economic impact.

INFECTION—Health Care Use & Policy Studies

PIN42

DESIGNING AND TESTING A HIV-PATIENT SATISFACTION SURVEY FOR A COMPARATIVE ANALYSIS OF MAIL-ORDER PHARMACY VS. COMMUNITY PHARMACY SERVICES

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OBJECTIVE: Designing and testing a reliable and valid survey for comparing HIV patients’ satisfaction with services provided by mail order with those provided by a community pharmacy. METHODS: Exploratory cross-sectional design using convenience sample of HIV patients at a University Clinic. The satisfaction scale was developed from previously validated instrument (α = 0.957 & α = 0.962 for factor 1 & 2 respectively). This scale was used for all three settings i.e. mail-order, independent, and chain pharmacies. Practicing pharmacists, graduate students, and pharmacy faculty assessed face and content validity. Clinical pharmacists checked for patient ease of understanding, length, and sensitive items. Subjects evaluated survey completion time. Faculty members determined ease of understanding, time of completion, research soundness, and objective match. Modifications were made followed by data collection for six-weeks. Reliability tests and item analyses were conducted. Data were entered using SPSS v.15. RESULTS: Forty-seven surveys were completed. Item-objective match ranged from 75–90%. Item means ranged from 2.50 to 4.44 for factor 1 and 2.27 to 4.36 for factor 2 for mail-order, 2.33 to 3.93 and 2.85 to 3.85 for independent, and 3.00 to 4.69 and 3.09 to 4.09 for chain. Response variability for most items were above 0.9 using Factor ‘V’. Corrected item-total correlations ranged from 0.484 to 0.902 and 0.606 to 0.907 for factor 1 and 2 respectively for mail-order, 0.577 to 0.965 and 0.858 to 0.960 for independent, and –0.35 to 0.862 and 0.599 to 0.932 for chain. None of the items if deleted would increase alpha. Cronbach’s alpha for factor 1 were 0.879 for mail, 0.960 for independent, and 0.803 for chain and for factor 2 were 0.950 for mail, 0.983 for independent, and 0.969 for chain. CONCLUSION: Analysis indicates good face and content validity, and high reliability. Item analyses indicate items are well written and have good response location, variability, and discrimination.

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NATURAL HISTORY OF CHRONIC HCV INFECTION OBTAINED THROUGH INJECTION DRUG USE: A BAYESIAN META-ANALYSIS

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OBJECTIVE: To estimate the rate of progression to cirrhosis for those infected with Chronic Hepatitis C virus (HCV) through...