

Perspectivas Psicológicas en el Cuidado de la Diabetes

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Health Statistics: 2010

(*The Economist*, 12.12.09)

Country	Private Cost	Public Cost	Per Person (\$'000)
US	8%	7%	7.3
France	3%	8%	3.6
Germany	3%	7%	3.6
Canada	4%	6%	3.9
Britain	2%	7%	3.0
Japan	2%	7%	2.6
Turkey	2%	5%	0.6

US Health Care Expenditures

(CMS)

- Health Care Spending & Gross Domestic Product
 - 1960 = 5.0%
 - 1970 = 7.0%
 - 1990 = 9.0%
 - 2002 = 15.4%
 - 2004 = 16.0%
 - 2005 = 16.2%
 - 2010 = 18.0%
 - 2015 = 20.0% (or 4 trillion \$)
 - Final = 33.3%

National Background

- Total Costs
 - Annually = \$2.3Trillion (Federal = \$1.26)
 - Approximately 18% of the GNP of the US; 15% of GDP
 - Insurance Plans
 - 84% Insured/ 14% Uninsured
 - Over 700 Health Care plans (15% admin cost for private; 3% for federal)
- Breakdown
 - Clinical Services = \$421.7
 - Hospital = \$611.6
 - Other = \$338.6
 - Medical Products & Drugs = \$258.8
 - Nursing Homes = \$169.3
- Comparison to Other Nations
 - US = 16.0%
 - UK = 8.3%
 - CHINA = 4.7%

History of Health Care Reform

(New York Times, 08.19.09)

- 1912: Theodore Roosevelt proposes national health insurance
- 1929: First health insurance program- Baylor Hospital in Dallas, TX
- 1931: First HMO- Farmer's Union Cooperative Health Association
- 1932: Wilbur Commission recommends health insurance prepayment

History of Health Care Reform

(New York Times, 08.19.09)

- 1945: Harry Truman proposes compulsory coverage
- 1965: Birth of Medicare & Medicaid (LBJ)
- 1968: Beginning of spiraling of health care
- 1971: Richard Nixon requires minimum health insurance by employers
- 1976: Jimmy Carter calls for universal and mandatory coverage
- 1993: Bill (Hilary) Clinton's managed competition

Health Care Bill:

How Health Care Will Be Revolutionized by 2018

[http://thomas.loc.gov/cgi-bin/bdquery/z?
d111:H.R.4872:](http://thomas.loc.gov/cgi-bin/bdquery/z?d111:H.R.4872:)

(also, www.healthcare.gov)

Affordable Health Care for America Act (HR 3962)

- Extend Health Care to Uninsured
- No Limitations on Pre-existing Conditions
- Guaranteed Renewal
- Limit Rating on Patients Based on Health
- Ban Use of Annual & Lifetime Caps
- Address Personnel Shortfall
- Medical Home Pilot Projects
- Control Federal Budget

Preventive Services: A New Frontier

- Annual wellness visits
- Prevention plan services
- Furnish personalized health advice to health education or prevention services
- Detect cognitive impairment

NOTE: Unclear application for psychologists

Prevention Services

- Removal of deductible and co-insurance
- Addition of annual wellness visits
- Addition of Health Risk Assessment

See ama-assn.org/go/medicare-prevention

Integrative Health Care: Engagement of Behavioral Health

- 75% are chronic illnesses
- 50% of mental health care is done by PCP
- 600,000 behavioral health professionals of which 100,000 are psychologists
- Current coding limited for physicians more limited for psychologists

Past & Future

Activity	Current	Future
Reimbursement Base	Service	Outcome
Reimbursement Direction	Singular	Bundled
Location of Service	Inpatient	Outpatient (e.g., home)
Provider Approach	Silo	Integrated
Numbers	Volume	Limited (& targeted)
Patient Approach	Standardized	Personalized
Foundation of Service	Experience based	Empirically based
Location of Patient	Independent	Health Care Home

Chronic Disease: Diabetes

- Diabetes is characterized by high blood glucose levels that result from the body's inability to produce and/or use insulin
- There are 3 types of diabetes:
 1. Type 1 – this form of diabetes is usually diagnosed in children. In type 1 diabetes, the body does not produce insulin
 2. ***Type 2 – in this form of diabetes your body does not use insulin properly***
 3. Gestational – during pregnancy, many women develop this form of diabetes. Developing this form of diabetes does not mean that it will continue past giving birth, however, a special attention towards blood glucose levels should be given

Prevalence

- 80% of people with diabetes live in low and middle income countries
- 183 million people with diabetes are undiagnosed – this is approximately 50%
- 366 million people have diabetes in 2011 – by 2030 it is expected to rise to 552 million
- Diabetes caused 4.6 million deaths in 2011; top 10
- Approximately \$200 billion per year in US alone

Psychologists Role in Diabetes Care

- Diabetic care is provided by many health care professionals – physician, nurse, dietitian, psychologist
- Psychologist promotes health behaviors and treatment of psychological and health problems
- Most common reason for psychological referral is nonadherence to the diabetes regimen
 - Nonadherence includes not following the meal plan, improper insulin administration, inaccurate recordings of blood glucose testing and inadequate amounts of exercise
- Psychologist enhances clinical outcomes; primary focus should be reduction or amelioration of diabetes

Age-Adjusted Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Who Have Risk Factors for Complications, United States, 2010

Risk Factor	Percent
Current smoking	19.9
Obese	56.9
Overweight	84.7
Physical Inactivity	36.1

Smoking and lack of physical activity are risk factors with behavioral foundations. Also, being overweight or obese as a byproduct of poor diet and lack of exercise are behavioral risk factors.

Age-Adjusted Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Receiving Preventive Care Practices, United States, 2010

- The following preventative care practices can be enhanced via a psychologist.

Preventative Care Practice	Percent
Annual dilated eye exam	62.8
Daily self-monitoring of blood glucose	63.6
Annual foot exam	67.5
Annual doctor visit	84.9
Daily self-exam of feet	61.1
Two or more A1c tests in last year	68.5
Attended diabetes self-management class	57.4
Annual influenza vaccine	50.1
Ever had pneumococcal vaccine	42.5

Neuropsychological Issues I

- Test such as the WAIS have shown lower performance in non-demented diabetics than non-demented and non-diabetics (Pasquier, 2010)
- On the Mini Mental Status Exams a cognitive decline of between 1.2 to 1.7 times in individuals with diabetes (Cukierman, 2005)

Neuropsychological Issues II

- Life long lower cognitive abilities impairs cognitive functioning in people with diabetes more than diabetes impairs cognitive performance (Mottus, 2013)
- Based on a sample of 1017 participants who completed tests approximately 60 years apart

Neuropsychological Issues III

- Increased probability of acute stroke
- Most frequent non-stroke neuropsychological profile includes;
 - Subcortical cognitive decline
 - Cerebrovascular dementia
 - Fronto-temporal dementia
 - Lewy-Body dementia

Potential Improvements in Diabetic Care

- Economic
 - Close to \$200 billion per year in US
 - Approximately 50% is due to indirect costs such as missed work
 - Shift the cost of health care from disease to prevention (much less expensive)

Potential Improvements in Diabetic Care

- Practical
 - Reduction in # of cases
 - Control of glucose & A1C
 - Reduction in concomitant damage
 - Reduction in morbidity & mortality
 - Overall improvement in quality of life

Suggested Solutions

- Neuropsychological data as biomarkers
- Integrated Care
- Increase role and leadership in patient care
- Shift focus of health care from disease to prevention
- Emphasize personal responsibility on the part of the patient
- Shift focus from payment for service to payment for performance

An Idea

- The existing paradigm-
 - CNS = neuropsychologist
 - PNS = clinical psychologist

Alternative paradigm-

Clinical health neuropsychology

A problem

- Possible underlying problem-
 - Understanding
 - Motivation

A personal perspective...

Resources

- Puente, A. E. Psychology as a health care profession. *American Psychologist*.
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