Impact of Socio-Economic Factors on Patients’ Knowledge of their Condition, Involvement in Treatment Decisions and Subsequent Compliance with their Treatment Regimen

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M Palm, V Higgins, R Lawson, J Piercy
Adelphi Group Products
Study Objectives

• To understand the influence of socio-economic factors, from a physician viewpoint, regarding the patients’:
  - knowledge of their disease
  - involvement in treatment decisions
  - compliance with medication
Patient Sample and Study Timings

• Countries:  
  Germany, Spain, USA

• Patient sample:  
  2,526 patients in total

• Patient criteria:  
  Patients 12 years and older who present with a diagnosis of asthma

• Fieldwork timings:  
  Q1 2007
Methodology and Recruitment

• The Adelphi Asthma Disease Specific Programme (DSP©) is a cross-sectional, observational study of consulting patients.

• Data were collected by physicians who recruited the next 6 consecutive patients consulting for asthma from a specified start date.

• The key factor analysed for this study was employment status (higher versus lower socio-economic status).

• Data were analysed using Chi-square and Fisher's exact tests to test for differences.
Disease Specific Programme Methodology

**PHYSICIANS**
Primary Care & Specialists

**ATTITUDINAL**
Doctor Level Data
Face-to-Face interviews with doctors

**PRESENTATION DATA**
Patient Level Data
Workload page completed by doctors

**BEHAVIOURAL / DOCTOR PERSPECTIVE**
Patient Level Data
Patient record forms completed by doctors prospectively

**PATIENT PERSPECTIVE**
Patient Level Data
Self-completion questionnaires completed by matched patients

**PATIENTS**
Consulting

- Physician completed
- Patient completed

matched sample
32. What is your current employment status?  
(Please tick one box only)

- Professional
- Managerial or Technical
- Skilled – non-manual
- Skilled - manual
- Partly skilled
- Unskilled
- Unemployed
- Retired
- Homemaker
- Armed forces
- Student

Higher versus Lower SES* Categorisation – Patient-reported

* Socio-economic status

- Higher SES 73%
- Lower SES 20%
- Not employed 7%

Excluded from this analysis
1a. What is the level of knowledge this patient has about their asthma and treatment options? *(Please tick one box only)*

- None
- Limited
- Some
- Moderate
- High

Low

High

1b. How involved is the patient in the treatment decision? *(Please tick one box only)*

- Not at all
- Seeks advice occasionally
- Asks several questions
- Discusses treatment options in detail
- Requests specific products

Low

High

1c. How compliant is the patient with their asthma treatment? *(Please tick one box only)*

- Not at all
- Has poor compliance
- Has variable compliance
- Fairly compliant
- Fully compliant

Less Compliant

Fully Compliant
Knowledge and Involvement by Employment Status

‘High Knowledge’
about asthma and treatment options

‘High Involvement’
in treatment decisions

- Knowledge: p<0.05 in Germany, US; p=0.062 in Spain
- Involvement: p<0.05 in Germany, US; p=0.132 in Spain
Compliance by Employment Status

‘Full Compliance’
with their asthma treatment

- p < 0.05 in US and Germany
- p = 0.52 in Spain
Involvement in treatment decision (1:Not at all – 5:Requests specific products)

Significant positive correlation between knowledge and involvement (p<0.01)
Knowledge versus Compliance Correlation

Significant positive correlation between knowledge and compliance (p<0.01)
Conclusions (1)

• There are significant differences in knowledge, involvement and compliance between socio-economic groups in the US, Germany and Spain.

• In the US, involvement of disease engagement amongst lower SES patients is on a par with higher SES patients level of involvement in Spain.

• We suggest this may reflect varying healthcare systems and environments, including the DTC and DTP prevalence in the US.

• The correlation between level of involvement and compliance may indicate that if physicians made particular efforts with lower socio-economic groups in treatment decisions, compliance levels would improve.
Conclusions (2)

- Increase Knowledge
- Increase Compliance
- Increase Involvement

Asthma

Increase Knowledge → Increase Involvement

Increase Compliance
Further Research

• The DSP allows us to include many other relevant factors including:
  - Age / gender / ethnicity
  - Comorbidities
  - Concomitant medications
  - Length of time since diagnosis

• Future plans to develop analyses to include some or all of the above

• Any other ideas?