Connecting the dots: What does personal experience with health care have to do with organizational health system preferences?

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Introduction

• There has been growing interest from policymakers and scholars alike in satisfaction ratings of the health care system.

• What ratings should we look at as a sign that the system requires overhauling?

• Different focuses:
  • Patient experience (Bleich et al. 2009).
  • Access barriers (Kim et al. 2012).

• Tricky question: observed gap between users’ evaluations of their interaction with specific services and their satisfaction with the system (Hero et al. 2016).
Introduction

Fig. 1. Percentage of people declaring “feeling completely satisfied, very satisfied and fairly satisfied” with treatment received in their last doctor visit and with the health care system. Source: own, ISSP (2011).

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Why is this relevant?
- Policymakers need insights about where to put the reform efforts, to fix what needs to be fixed (opinion driven).

It’s important therefore to unveil empirically the main factors influencing the evaluation of the health care system, individuals’ experience using it, and their connection with variables usually employed to guide reform efforts.
• **Research questions:**
  • Does personal experience using health care services influence (if at all) the views about how the health care systems works and its eventual rearrangement?
  • If so, how does that happen?
What we do

• We develop a novel integrated framework that helps to understand the association between satisfaction with the health care system, doctor visits, and other experience variables.

• Moreover, we study how these variables can influence views about the organization of the system, such as:
  • opinions on the need of change;
  • the scope of benefits (health services) provided by the government and;
  • the willingness to pay more taxes to improve the system.

• We follow a phenomenological approach to Sociology developed by Schütz and Luckmann (2009), which helps us specify the variables and associations that shape such views.
Theoretical framework: Research model

Country level

Individual level

Socio-economic variables
- sex
- age
- education
- subjective social position
- unemployment

Health status
- long standing illness
- physical and psychological problems
- self-rated health

Public health expenditure, Out of pocket payments, Doctors per population, Beds per population, Life expectancy

Normative judgment
- fairness

Satisfaction with health care system

Satisfaction with doctor treatment
- Perception of health insurance coverage

Need of change
- Scope of benefits
- Willingness to pay more taxes

Fig. 2. Research model.
Health status:

• Interaction with health system is not frequent, mainly when ill. Knowledge is limited (Schütz and Luckmann 2009).

• Most individuals draw on past experiences of use and socialization to form opinions. Experience with health services inform workings of the health system and views of system change.

Normative judgements:

• Acceptance of new information depending on predispositions (Zaller 1992).

• Values/ beliefs formed during the individual’s socialization process (i.e. the transition to adulthood) (Inglehart & Welzel 2005).

• Fairness (e.g. access to services independent of the income level) relevant to shape opinions (Wendt et al. 2010).
Data and methods

- **2011 International Social Survey Programme (ISSP) module on Health & Healthcare.**
  - National representative surveys across the globe using probability sampling, carried out in the period 2011-13.

- The sample used includes more than 30,000 respondents living in **28 countries**.

- **Country level data comes from the World Bank’s World Development Indicators (WDI) for the year 2011 or nearest.**

- We estimate a multilevel mediation model.
Results

Fig 3. Main direct effects to perception of need of change.

Indirect effects:
1. $\beta = -0.108 (0.423 \times -0.256)$, $SE = 0.007$
2. $\beta = -0.066 (0.260 \times -0.256)$, $SE = 0.010$

$-0.256^{***}$

(0.013)

Note: positive relation
negative relation
not significant

1. Satisfaction with health care system
2. Perception of health insurance coverage

1. Satisfaction with doctor treatment
2. Perception of health insurance coverage

1. $0.423^{***}$
   (0.018)
2. $0.260^{***}$
   (0.036)

Gráfica: David Parra Arias
Results

Fig. 4 Main direct effects to perception of Scope of benefits.

- **Satisfaction with health care system**
  - 1. **0.423*** (0.018)
  - 2. **0.260*** (0.036)

- **Scope of benefits**
  - Indirect effects:
    1. $\beta = 0.030 \times 0.07$, SE = 0.005
    2. $\beta = 0.018 \times 0.07$, SE = 0.004

- **1. Satisfaction with doctor treatment**
  - $-0.002$ (0.008)
- **2. Perception of health insurance coverage**
  - $-0.003$ (0.015)

**Note:**
- Positive relation
- Negative relation
- Not significant

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Note: positive relation
negative relation
not significant

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Results

Fig. 5 Main direct effects to Willingness to pay taxes.

Indirect effects:
1. $\beta = 0.055 \times 0.130$, SE = 0.007
2. $\beta = 0.034 \times 0.029$, SE = 0.006

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Path</th>
<th>Coefficient</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Willingness to pay taxes</td>
<td>0.130***</td>
<td>(0.016)</td>
</tr>
<tr>
<td>2</td>
<td>Satisfaction with health care system</td>
<td>0.423***</td>
<td>(0.018)</td>
</tr>
<tr>
<td>3</td>
<td>Satisfaction with doctor treatment</td>
<td>0.260***</td>
<td>(0.036)</td>
</tr>
</tbody>
</table>

Note: positive relation, negative relation, not significant
Some contrasts:

- **Bleich et al 2009**: patient experience explains little of total variance.
  - We show that experience is either directly or indirectly associated to key policy parameters.
  - Careful measuring for correct priority setting for policymakers.

- **Wendt et al 2010**: the experience with the existing institutional structure is not relevant to explain the scope of benefits provided by the government, but value orientations are.
  - We show that a good experience is indirectly associated with a preference for a limited provision of health care through its influence on the evaluation of the system.
  - This result highlights the importance of using a mediation analysis for analyzing this view.
Some contrasts:

- **Wendt et al 2010 (cont):** show limited effects of country level variables on scope of benefits provided by the government in European countries.
  - Our results *show some contextual effects* (e.g. bed supply, out of pocket payments);
  - Therefore, it is important to have a **heterogeneous group of countries** to better understand the effect of country level variables on opinion of the healthcare system.
  - ISSP module is ideal for that purpose.
• **We find that experience matters.** It influences both views on how the health system works and how it should be organized.

• **We show that such influence is direct, but not in all cases;** rather, there is a mediation effect through its influence on the evaluation of the system.

• **Experience is somewhat under the control of the regulator and can be subject to reforms.**

• **However, these views are also dependent on values/exposure to information coming from different sources beyond regulator’s influence.**
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