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Intrinsic and extrinsic motivations in primary care: An explanatory study among French general practitioners

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ABSTRACT

Background: Like many other OECD nations, France has implemented a pay-for-performance (P4P) model in primary care. However, the benefits have been debated, particularly regarding the possibly undesirable effects of extrinsic motivation (EM) on intrinsic motivation (IM).
Objective: To examine the relationship between French GPs' IM and EM based on an intrinsic motivation composite score (IMCS) developed for this purpose. If a negative relationship is found, P4P schemes could have side effects on GPs' IM that is a key determinant of quality of care.
Method: From data on 423 GPs practicing in a region of France, IM indicators are selected using a multiple correspondence analysis and aggregated from a multilevel model.
Results: Several doctors' characteristics have significant impacts on IMCS variability, especially group practice and salaried practice. Qualitative EM variables are negatively correlated with the IMCS: GPs who report not being satisfied with their income or feeling "often" constrained by patients' requests in terms of consultations length and office appointments obtain a lower mean IMCS than other GPs.
Conclusion: Our results provide a cautionary message to regulators who should take into account the potential side effects of increasing EM through policies such as P4P.

1. Introduction

In the majority of OECD countries, general medical practice is in crisis. Various symptoms include increasing GP job dissatisfaction, low morale and general unhappiness [1,2]. General practice does not attract young physicians; in France, 33% of the positions offered in general practice in 2010 remained vacant [3]. Moreover, there are difficulties in recruiting and retention, particularly in rural areas. In this difficult context, one likely reason for the persistence of problems in general practice is the income gap between specialities. General medicine is one of the least-remunerated medical specialties, and this is particularly true in France [4–6].

Pay-for-performance (P4P) payment schemes have been introduced in many OECD countries over the last 10 years. These policies base a part of each doctor's income on indicators designed to measure individual performance [7]. More recently, France engaged in this type of reform with the CAPI[1] in 2009, which has been generalised to the entire population of GPs from January 2012. The rationale for these policies is to provide monetary incentives for physicians to enhance preventive care provisions and chronic disease follow-up in an effort to improve the quality of care [8]. P4P can also be viewed as a way to achieve several other indirect goals, such as increasing GPs' compensation and improving computer utilisation, information sharing and feedback [9].

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[1] Contrat d'Amélioration des Pratiques Individuelles.

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Nevertheless, the efficiency of such additional payments is debated, and the need to implement target payment schemes is questionable because the relationship between pay and performance has not been well established [10–12]. Additionally, there are potentially adverse effects, such as patient or disease selection [13–15]. Several studies have shown that incentive schemes may decrease doctors' quality of life and have negative consequences on end-user satisfaction [16,17]. Such schemes have also been assumed to be one of the reasons for increasing levels of professional burn-out [1,17].

Another potential side effect of these policies, as addressed in many theoretical papers, is that extrinsic rewards, such as P4P incentives, may crowd out Intrinsic Motivation (IM). IM emerges from activities that respond directly and immediately to individual needs. Such motivations have positive impacts on both work engagement and quality of care [18,19]. Historically, the concept was first defined by psychologists, who provided evidence for a crowding-out effect of IM by Extrinsic Motivation (EM) in the educational field [20,21]. Subsequent studies in the context of various social science approaches have suggested a negative relationship between IM and EM, supporting the hypothesis of the motivation crowding-out [22–26]. This issue may constitute an important health policy consideration, as the economic efficiency of any P4P mechanism and the long-term effects of such payment schemes are questionable.

Our aim in this exploratory study is to develop a composite score of GPs' IM, examine its determinants through doctors' characteristics and, finally, test the relationship between this score and GPs' EM. Because our study is cross-sectional, we focus on the substitutability or complementarity between GPs' IM and EM to highlight the possible side effects of increasing EM through policies such as P4P. We find that highly intrinsically motivated GPs may be less extrinsically motivated, although their turnover is not significantly different. In addition, GPs' practice characteristics explain the variability in the IM composite score, independently of their age or sex.

The paper is organised as follows. Section 2 describes the data used and the methods to develop the Intrinsic Motivation Composite Score (IMCS). Section 3 presents the results, which are discussed in Section 4.

2. Materials and methods

2.1. Data

A survey was conducted based on an auto-questionnaire of GPs working in community-based offices in southwest France (Midi-Pyrénées). Data were collected among GPs registered in the database of the Regional Union for Private Practitioners (Union Régionale des Médecins Libéraux—URML). In collaboration with the URML, an informative letter presenting the study was sent in the middle of March 2010, two weeks before the anonymous postal questionnaire was mailed. A recall letter was sent to all general practitioners three weeks after the questionnaire. Due to budget and time constraints (questionnaires had to be returned before the summer period), we decided to collect and compensate up to 500 respondents. At the end of July, 438 questionnaires were returned, and 423 were usable.

Considering that medical profession has a number of specific characteristics involving both the provision of a wide range of technical tasks which require high level of expertise and responsibility (diagnosis, treatment selection, patient monitoring, etc.) as well as non technical skills during patient–doctor relationship (listening of the patient, educating the patient, compassion, etc.), we chose to consider a specific questionnaire to measure IM among GPs. The questionnaire is composed of 68 items divided into four parts. The first part concerns GPs' practice organisation (e.g., group/solo practice, partial salaried/only private practice, engaged in the continuity of care). The second part addresses the GPs' working activities (e.g., prevention activities, working hours, turnover). The third part characterises doctors' satisfaction and professional constraints. Finally, the fourth part is dedicated to additional questions that are mainly socio-demographic in nature (e.g., age, gender, perceived state of health). The GPs were asked to report information on medical activity described in the annual document from the Public Health Fund that summarises individual turnover and the details of services provided by each GP throughout the year (individual professional activities record[2]). For the majority of the variables related to their activities (parts 1 and 2), GPs were asked to answer on a four-point Likert scale ("very often", "often", "sometimes", or "rarely"). Concerning the satisfaction and professional constraints variables (part 3), they answered on another four-point Likert scale ("often", "sometimes", "rarely", or "never"). In other cases, they replied to binary variables ("yes/no").

The sample is representative of the overall French GP population according to gender (72% are male, as in the total French GP population), age (the mean age is 52.1 vs. 50.1 years), participation in group practice (58% belong to a group vs. 54% in the total French GP population) and individual turnover (the average turnover free of charge is € 71,364 vs. € 71,690 in the French GP population).

2.2. Variables

2.2.1. Selection of the IM variables

We are interested in computing the IMCS for GPs. The first step consists of selecting and validating IM indicators among physicians. Because no standardised questionnaire has been developed to measure IM among GPs, the concept of IM remains an unobserved characteristic of GPs, and our selection of IM variables is based on explanatory methods. The variables are first selected based on previous results in the literature. There are generally two conceptions of IM. In the psychological approach, individuals derive pleasure from performing an activity, and the activity is considered intrinsically satisfying and rewarding [20,27]. In the social science approach, individuals may experience IM to play a social role in an organised system [23,28]. Thus, according

[2] "Relevé Individuel d'Activité Professionnelle" annually provided by the Public Fund.