

## RESEARCH ARTICLE

# Physician perspectives on the implications of the diagnosis-related groups for medical practice in Turkey: A qualitative study

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## Abstract

Hospital reimbursement models might have unintended consequences for medical practice. In Turkey, a mixed reimbursement scheme, based on the diagnosis-related group (DRG) model and global budget, was gradually introduced as part of the country's 2003 healthcare reforms. This article examines the impacts of the DRG model on medical practice in Turkey, as perceived by physicians working in public and private hospitals. This study draws on an analysis of 14 interviews with physicians. The findings reveal that the implementation of the DRG has transformed medical practice into a process of cost-benefit optimisation which involves balancing the income and expenses of hospitals against patients' medical needs. To mitigate the negative effects of the DRG, the current model may need to be reformed, particularly to grant exemptions from the standard reimbursement structure for patients who are experiencing complications and/or multiple health conditions.

## KEYWORDS

DRG, healthcare reform, physicians, policy implementation, Turkey

## Highlights

- The diagnosis-related group has transformed medical practice in Turkey into a process of optimisation.

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- Physicians are responsible for balancing hospital budgets against patients' medical needs under the current reimbursement model.
- Limited reimbursements for most of healthcare services hinder effective medical practice.
- Physicians agree upon the need to increase hospital reimbursement levels by the Social Security Institution.

## 1 | INTRODUCTION

Cost-containment measures have become a core component of health policy in many countries. The extent of healthcare service provision has been re-evaluated both to secure the financial sustainability of healthcare systems and to increase individual access to health care.<sup>1,2</sup> Given that public spending on hospitals comprises a large share of countries' overall expenditure on health care,<sup>3</sup> governments have introduced various cost-containment measures that apply to hospitals in particular. These measures include different reimbursement schemes, such as global budgets, fee-for-service, and diagnosis-related groups (DRGs).<sup>4</sup> Among these reimbursement schemes, the DRG model has been widely implemented in different healthcare systems, with an emphasis on its effectiveness in increasing efficiency in healthcare provision and to control hospital budgets.<sup>5</sup> The DRG standardises the expected reimbursement amounts for hospitals by categorising patients based on their diagnosis, treatment, and length of stay.

This article explores the perspectives of physicians in Turkey on the recently implemented DRG regulations, with a focus on the DRG's financial and medical implications. This study aims to fill the gap in the literature on the implications of the DRG in Turkey. These issues are explored in the context of Turkey's healthcare system, to which new reimbursement regulations were introduced as part of a 2003 reform known as the Health Transformation Programme (HTP). Under these regulations, a mixed reimbursement scheme, based on the DRG and a global budget approach to hospital funding, was gradually implemented. This reimbursement scheme has applied to public hospitals since 2010. Turkey constitutes an interesting case study through which to explore the effects of the DRG on medical practice in a country that implemented universal health coverage (UHC) and cost-containment measures with the same reform.

## 2 | LITERATURE REVIEW

Healthcare is a labour-intensive sector, and its performance depends heavily on well-trained and motivated workers.<sup>6</sup> Due to the influence of health workers on the overall performance of the healthcare system, they are arguably considered to be the most significant component of the healthcare system.<sup>7</sup> Additionally, they are strategic actors who can individually or collectively shape policies and regulations.<sup>8,9</sup> For this reason, supporting health workers and providing necessary incentives to motivate them are essential steps to guarantee higher quality in healthcare provision.

Healthcare reforms present both challenges and opportunities in addressing the problems of the healthcare sector.<sup>10</sup> In a context in which there is increasing emphasis on cost-containment, healthcare reforms and regulations in several countries involve policies shaping the medical practice of physicians. These policies focus on evidence-based medicine and the introduction of performance indicators, clinical practice guidelines, and managed care.

As a hospital reimbursement model, the DRG impacts different dimensions of healthcare systems, including financing, the quality of healthcare services, equity in access to healthcare services, and the clinical autonomy of physicians. The DRG was first implemented in the United States in 1983 to control increasing costs of its public health

coverage schemes – Medicare/Medicaid. Through the standardisation of reimbursement for particular diagnoses, illnesses and treatments, the DRG aims to put a limit on physicians' incentives to provide more services to increase their income or hospital revenue. The DRG also aims to increase the financial responsibility of the providers—physicians and hospitals. Although the DRG has been promoted as a universally applicable cost-containment tool by the World Health Organisation,<sup>4</sup> research has shown that the impacts of the DRG on healthcare systems and patient outcomes are complex and vary between countries.<sup>5,11</sup>

Research has shown that a common outcome of the DRG is reduced length of hospitalisation, which results in cost savings.<sup>4,12,14</sup> However, the benefit of reduced length of hospital stay due to the DRG is contested in the literature.<sup>15–18</sup> In a study conducted on experiences with the DRG in Japan, Korea, and Thailand, Annear et al.<sup>19</sup> show that reduced hospitalisation rates might result in premature discharge of patients in order to save costs. Moreover, the comparative study by Busse et al.<sup>5</sup> on the use of DRGs in European countries demonstrates that premature discharge results in reduced quality in the provision of healthcare services. While the study found that the DRG's impact on rehospitalisation in European countries has remained limited, different studies indicate that readmission rates increased after the implementation of the DRG. A systematic literature review conducted by Meng et al.<sup>18</sup> suggests that the DRG-based payment models are correlated with lower length of stay and higher readmission rates. Moreover, in France, while the DRG-based payment model improved accountability and productivity of healthcare providers, it created new problems in controlling hospital activity and securing medically appropriate care.<sup>20</sup>

Premature discharge raises concerns about health outcomes, especially those of individuals who are particularly vulnerable due to their health status, age, and socioeconomic situations.<sup>21,22</sup> Exploring hospital experts' opinions about the DRG in Switzerland, Leu et al. (2018) reveal that hospital experts are concerned about the health outcomes of vulnerable individuals, since the DRG does not address their special treatment needs. Moreover, since the provision of healthcare services for these individuals is not profitable or sustainable within the DRG model, there is a risk that hospitals might refrain from providing necessary treatment.<sup>22</sup> Similarly, the DRG might impose financial burdens on hospitals in cases of complications or severe illnesses, since it does not adequately take into account the additional costs incurred by complex cases, thereby limiting the ability of physicians to provide high-quality healthcare services.<sup>22–24</sup> Further financial burdens on hospitals are caused by the payment disparities between the actual costs of hospitalisation and the hospital reimbursement rates.<sup>23</sup> Overall, the regulation of medical practice by the DRG raises concerns among physicians in different countries about its impacts on quality of care and patient outcomes.<sup>22,24,25</sup>

Lastly, research has shown that some physicians are unsatisfied with the effects of DRG regulations on their professional autonomy.<sup>24,26,27</sup> Tummers and Van de Walle,<sup>24</sup> in a study conducted in the Netherlands to understand the reasons for physicians' resistance to policy changes, focus on the implementation of the DRG in psychological care. They reveal that physicians resist the implementation of DRG because they think that this reimbursement model neither improves the quality of care nor results in cost containment. Since depriving physicians of autonomy in diagnosis and prescription might result in decreased physician satisfaction in managed care environments,<sup>27</sup> the perception of physicians is important for the successful implementation of new healthcare policies.

### 3 | TURKEY'S HEALTHCARE REFORM AND HOSPITAL REIMBURSEMENT REGULATIONS

Turkey's healthcare system entered a 'large-scale reform'<sup>28</sup> – the HTP – in 2003 to address the existing inequities in the provision of healthcare services. Before the reform, the country's healthcare system was characterised by fragmented insurance coverage as a result of three different occupational-based insurance schemes which provide different entitlements to their beneficiaries, causing inequities in access to healthcare services.<sup>29</sup> Before the HTP, the healthcare spending was low compared in Turkey to other OECD countries, and health status indicators were poor compared to other European countries.<sup>30</sup> In addition, the rate of out-of-pocket payments was 28% of the total health expenditure

in 2000, placing Turkey higher than OECD average,<sup>31</sup> deepening health inequalities. The reform introduced policies to improve the financing and organisation of the healthcare system, as well as to enhance service provision.

One of the first steps of the HTP was the establishment of a purchaser–provider split to increase efficiency in healthcare financing.<sup>29</sup> The three former public insurance schemes, each of which had different regulations for entitlements and benefits, were unified in 2006. As a result of the unification of the three insurance schemes, the public Social Security Institution (SSI) was founded in the same year and, since then, has been the only purchaser of healthcare services from public and most private providers.<sup>32</sup> The HTP also incentivised private investment in the healthcare sector. As part of this policy, the SSI started purchasing healthcare services from private providers. The introduction of a single payer has paved the way for universal health coverage with the adoption of the Social Security and Universal Health Insurance Law in 2008. Considering the co-introduction of universal health coverage and market elements as part of the same reform,<sup>29,33</sup> the achievement of UHC in Turkey's healthcare system was 'distinctive'.<sup>34</sup>

While HTP extended public healthcare provision and introduced universal health coverage, the reform also promoted private investment to the healthcare sector, with an increased role of the state as a regulatory organisation.<sup>28</sup> To support the internal market including both public and private providers, the SSI started to purchase health services from private providers, allowing patients with public health insurance to access healthcare services from private providers by paying floating co-payments.

Considering the increasing provision of healthcare services, the HTP introduced flat-rate co-payments for public hospital visits, and floating co-payments for private hospital visits and medications to reduce moral hazard, since the reform also aimed to control healthcare expenditures as one of the main policy targets.<sup>35</sup> However, the ratio of public healthcare spending to gross domestic product (GDP) in Turkey has continued to increase since the late 1980s, and the HTP could not reverse this trend due to increased coverage of treatment and medications by the SSI with the implementation of universal health coverage.<sup>36</sup> Hence, the increased reimbursement of hospitals by the SSI is the main reason behind the increasing ratio of public healthcare spending to GDP.<sup>36</sup> Within this context, the financial sustainability of Turkey's healthcare system has gained more significance, leading to increasing control over hospital reimbursements, in line with international trends.<sup>4</sup>

With the goal of controlling hospital expenditure, mixed reimbursement scheme, based on the DRG and a global budget approach, was gradually introduced.<sup>35</sup> Under this scheme, the SSI allocates a global budget to the Ministry of Health (MoH) at the beginning of each year for the purchase of healthcare services for the beneficiaries of public health insurance. The global budget amount is calculated according to the previous year's budget, plus expected increases in the number of services provided, planned investments, and inflation. The MoH distributes the global budget to public hospitals according to the number of services they are expected to provide. Public hospitals are obliged to remain within the global budgets allocated to them to prevent over-expenditure.

The DRG model in Turkey was developed with a research project started in 2006, using the Australian Redefined Diagnosis Related Groups v5.1 as the benchmark until 2013. Since 2010, the reimbursement regulations of the DRG have been published by the SSI in the form of SSI Health Implementation Statements (HIS).<sup>37</sup> The HIS identifies the medical services that are reimbursed and announces the reimbursement amounts for each inpatient and outpatient diagnosis and treatment. In 2012, the Department of Diagnosis-Related Groups was instituted under the MoH to collect data from public hospitals across Turkey and to provide analysis of these data to the SSI so that they could determine reimbursement rates accordingly. The DRG reimbursement amounts are set by the SSI through a closed bureaucratic decision-making process. Hence, it is not possible to state how the cost–benefit calculations are made by the SSI internally to determine the DRG rates. It is important to note that the DRG, as applied in Turkey, does not adjust for severity of cases, instead reimbursing a standard amount for the initial diagnosis.

In 2010, the mixed reimbursement scheme was partially implemented under pilot schemes in certain cities through the distribution of global budgets to public hospitals according to the DRG regulations. Since 2013, this scheme has been fully introduced in every public hospital across Turkey to control healthcare spending and to secure efficiency through the standardisation of reimbursement for healthcare providers.

Public healthcare providers are incentivised to comply with the reimbursement regulations due to new remuneration models, which were also implemented as part of the HTP. With the introduction of the performance-based payment system in 2004, health workers such as physicians and nurses are given supplementary performance payments each month, in addition to their salaries, based on the services they provide. Since these payments are drawn from hospitals' global budgets, health workers have to comply with the reimbursement regulations not only to sustain their hospitals' finances, but also to be eligible for their performance payments. To elaborate, if physicians provide healthcare services to patients that exceed the DRG amounts assigned to each diagnosis and related treatments, the SSI does not reimburse these services and hospitals must pay for these services from their own budget. Further reductions in hospitals' budgets cause diminishing performance-based payments for physicians and other health workers. Hence, healthcare providers' compliance with the SSI's reimbursement regulations results in financial benefits not only for hospitals, but also for physicians.

The DRG regulations apply not only to public hospitals, but also to private hospitals that are contracted by the SSI to provide healthcare to public insurance beneficiaries. Under the current scheme, the SSI purchases healthcare services from private providers via yearly contracts, with reimbursement amounts determined by DRG rates. The contracts may take various forms, depending on the extent of the coverage: They may include all services provided by the private hospital, only specific specialty services, or only services provided by specific physicians.<sup>37</sup> In addition, since 2010, all private hospitals are prohibited from charging patients for certain services, including emergency services; intensive care; burn injury treatments; cancer treatments, including radiotherapy, chemotherapy, and radioisotope therapy; neonatal care; surgery for congenital anomalies, and organ transplantation.<sup>37</sup> This regulation means that all such services by all private hospitals are reimbursed on the basis of rates set by the SSI.

While the impact of the health care reform in Turkey on the working conditions of physicians has been subjected to extensive research,<sup>30,38,41</sup> the research on the physician perceptions of the current health care system in Turkey is limited.<sup>39,41</sup> Moreover, there is a gap in the literature on physician perceptions about the hospital reimbursement models in Turkey – an issue which has been subjected to research in different countries.<sup>22,24,25,42</sup> Thus, this study aims to contribute to the literature on physician perceptions of the health care reform in Turkey by focussing on the DRG as a policy that shapes the medical practice of physicians.

## 4 | METHODS

This study uses qualitative methods to explore physician perceptions working at public and private hospitals on the DRG model and its impact on medical practice. Semi-structured face-to-face interviews were conducted with 14 physicians between March and May 2019. Semi-structured interviews were chosen as the data collection method to facilitate a dialogue between the researcher and the respondents and to enable an a comprehensive exploration of physicians' perspectives on the implications of the DRG for their practice. The interviews were conducted in Turkish and lasted an average of an hour. The interviews took place at the physicians' clinics, were audio-recorded with participants' written consent and transcribed verbatim.

The participants were physicians from different specialities working at public and private hospitals, all providing public healthcare services funded by the SSI. Snowball sampling is used to select participants who have the potential to provide enriched and diverse data, among a hard-to-reach group of professionals.<sup>43,44</sup> Participants were identified by the researcher according to the eligibility criteria, and they were asked to nominate other participants. Snowball sampling is chosen as the appropriate recruitment method for this research for two reasons. First, physicians have a high workload which causes difficulties in recruitment for researchers, who must put demands on physicians' limited free time for interviews. Secondly, physicians in Turkey consider talking about policy regulations as a sensitive political issue. Hence, snowball sampling allowed the researcher to recruit participants for the interviews.

Equal numbers of physicians from public and private hospitals were included, and physicians in both clinical and surgical branches were chosen to reflect the full diversity of the medical profession. The breakdown of specialties was as follows: five paediatricians, three oncologists, two internists, two general surgeons, and two obstetricians. Data saturation was achieved with 14 interviews, at which point little new or additional information was being presented on physician experiences.<sup>43,45</sup> The interview transcripts were analysed in Turkish using NVivo 12. A thematic analysis to code the data was conducted by the author in line with the process described by Braun and Clarke.<sup>46</sup> The author familiarised herself with the interview transcripts, identified 'pattern responses',<sup>46</sup> and created codes for overarching themes. Data included in this article is translated from Turkish to English by the author.

The findings of this qualitative study demonstrate only the experiences of the participating physicians and, therefore, they cannot be generalised to the broad physician population in Turkey. However, adopting qualitative methods enabled the study to more deeply capture the views of physicians on the DRG regulations, using this sample of physicians to explore different experiences across the diversity of medical practice. In addition, it is important to emphasise that this study discusses the DRG reimbursement model as it is applied in Turkey; hence, the results discussed in the next section must be evaluated within the country-specific context.

## 5 | FINDINGS

The analysis of the data collected through the interviews identified two key themes: (a) financial implications and (b) medical implications.

### 5.1 | Financial implications

The statements of the participating physicians demonstrate a high degree of awareness of hospital budgets and the costs of medical interventions. The DRG regulations force some physicians working at public hospitals to make cost-benefit calculations to meet patients' medical needs while remaining within the hospital's budget. Hence, medical practice now involves a process of optimisation, especially in light of the low levels of reimbursement, which have a negative impact on hospital budgets, as emphasised by some physicians:

Simply put, if the SSI reimburses 25 liras for a patient, this cost might increase up to 50 liras when you demand a medical test. This causes a loss of 25 liras from the hospital's budget.

(Paediatrician 3, public)

The reimbursement amounts applied by the SSI through the DRG have not been updated since 2007. The SSI does not take the responsibility for hospital expenditures, saying things like, "If you do this medical intervention, I cannot reimburse it at all/at this hospital." Despite all of their efforts and high workload, physicians cannot get the worth of their labour, because the reimbursement amounts [for hospital services] are very low. The SSI definitely exploits physicians.

(Obstetrician 1, public)

The SSI reimburses 21 liras for a patient, maybe even less. Let's say that you consult me for menstrual irregularities. I would normally demand 6–7 hormonal tests, which cost approximately 14 liras per test. The total sum comes to 100 liras. We invoice the SSI 21 liras for this diagnosis. So, the hospital begins to lose money, and faces an imbalance of income and expenditures. This situation affects our financial

situation as physicians. But can you say, "I won't demand these medical tests for that patient"? No, you can't.

(Obstetrician 1, public)

Since the inadequate reimbursements provided by the SSI cause budget deficits for public hospitals, such hospitals are forced to cover additional expenditures from their own MoH-assigned global budgets. This leads to lower remuneration for physicians under the performance-based payment system. Accordingly, some hospital managers encourage physicians to comply with the DRG regulations by emphasising these potential losses in performance payments:

Previous chief physicians were telling us that, for instance, an internist demanded x number of medical tests, but another physician demanded fewer medical tests than this internist. The physician who demands fewer medical tests is considered more successful because s/he reduces the hospital's expenditures.

(Paediatrician 3, public)

Paediatrician 3's concern about hospital leadership was not shared by all physicians. One oncologist stated that he does not face any financial restrictions as a result of the DRG regulations due to the nature of his specialty and the relatively high SSI reimbursements for oncological interventions:

As a medical oncologist, I don't feel any financial pressure. The reason is, to be fair, medical oncology provides significant profits for both public and private hospitals. Therefore, the management does not put any pressure on us, like, "Do not demand these tests, do not do these interventions." Because, first of all, medical oncology deals with a malignant disease, and second, the medications we prescribe are extremely costly. A PET/CT test we demand for a patient—it is one of the costliest medical tests right now—costs 1200 liras, but a medicine I give to a patient for 15 days costs the state 4000–5000 liras. For that reason, we do not confront any managerial pressure for medical tests.

(Oncologist 1, public)

This oncologist argued that, as a result of the extensive reimbursement package for oncological services, he does not face the financial pressures reported by his colleagues. This indicates that the differing levels of reimbursement under the DRG regulations result in varied experiences across specialties.

The standardisation of reimbursements for each diagnosis creates a financial burden for healthcare providers when a patient suffers complications. This concern is shared among physicians working at both public and private hospitals, as mentioned by two surgeons:

Let's say that a complication develops. Normally, you have to hospitalise patients who have had a C-section for 2 days, and vaginal deliveries for 24 hours. The package reimburses it. However, a patient with a complication might be hospitalised for a week. This is when a problem occurs. In the final analysis, I think that the DRG is not a good thing.

(Obstetrician 2, private)

You cannot apply the DRG packages to every patient. There are patients with serious issues or complications. The reimbursement package of a patient with diabetes, hypertension, or cardiovascular disease cannot be treated in the same way as a regular patient. These issues have to be regulated, and it is outside of my control.

(General surgeon 1, public)

Physicians in surgical specialties face a higher risk of patients suffering complications, and sometimes have to operate on patients with multiple health conditions. In such cases, the SSI reimburses only the standardised amount for the first diagnosis, meaning that expenditure on additional medical care must be covered by the hospitals' own budgets. Although one of the surgeons quoted above works in a public hospital and the other in a private hospital, both felt that they face the same conflict between practicing good medicine and protecting their hospital's financial interests and achieving a higher level of personal remuneration. This raises concerns about the standardisation of reimbursement amounts for patients with complex needs under the DRG model.

While the financial pressures caused by the DRG regulations are commonly experienced by physicians working at public hospitals, two physicians working at private hospitals reported divergent experiences:

For instance, let's say I did a C-section, and the patient suffered a haemorrhage. I am not in a situation to wait for a blood count test. I would demand two or three units of blood. It has a cost for the hospital, but the SSI does not reimburse it. As far as I know, the Health Implementation Statement prices [meaning the reimbursement amounts determined by the SSI] are the same as those from 9 years ago. The SSI reimburses the same amount as they did 9 years ago. If you transfuse blood to the patient, you unwillingly have to charge the patient. It is said, "Blood cannot be sold." But it has a cost for the hospital. This is a private hospital, not a public institution.

(Obstetrician 2, private)

Maybe it is related to my specialty, but I don't feel any financial pressure. There is no such thing as the state not reimbursing any medication. If a private insurer does not cover medications and treatments that are necessary for a child, they must be conducted under the authorisation of the parents.

(Paediatrician 5, private)

The above quotes again illustrate that physicians' experiences of the financial impacts of the DRG vary across specialties due to the differing levels of reimbursement for different diagnoses.

## 5.2 | Medical implications

The financial regulations introduced by the DRG have had unintended consequences for the provision of healthcare services. Most of the participating physicians identified problems related to the DRG's restrictions on the reimbursement of the costs of medications, examinations, and medical devices and equipment.

For instance, we have problems when we demand medical tests. You have to wait for a specific period before repeating a medical test. Also, some medical tests can only be demanded by specific specialties.

(Paediatrician 2, public)

Restrictions on the reimbursement of medical tests based on specialty and the time since a previous test have negatively impacted this paediatrician's practice. Another paediatrician, who had recently retired from a public provider and currently works at a private hospital, criticised reimbursement regulations on medications. He referred to his experiences at a public hospital to illustrate this point:

We confront difficulties with some medications that are not reimbursed. Additionally, some medications require specific diagnoses to be reimbursed.

(Paediatrician 4, private)



The medical implications of the DRG also differ across specialties. Physicians in specialties with extensive reimbursement packages, such as oncology, did not report the DRG having any negative impact on their medical practice:

In the medical oncology specialty, there is not a clear-cut DRG package. When I diagnose a patient with cancer, I can order whatever medical test or radiological test I want. I don't experience any restriction currently, but when I was an internist, I wasn't able to order some medical tests because of the DRG. (Oncologist 1, public)

Although Oncologist 1 stated that his practice is not currently restricted by reimbursement regulations, he also referred to his previous role as an internist, in which he confronted restrictions caused by the DRG regulations. Furthermore, he emphasised the significance of a physician's competence in the DRG reimbursement model. He argued that limiting medical tests for specific diagnoses, as required by the DRG, might cause misdiagnoses:

If a physician thinks that the medical tests reimbursed by the DRG are sufficient for the diagnosis, it is fine. However, if a physician is not competent enough, he might not foresee the insufficiency of the medical tests reimbursed by the DRG, and might misdiagnose a patient. He might say, "I ordered these medical tests for the patient, the state reimburses these, and the patient does not have any additional symptoms," and therefore miss out on some issues. For instance, a patient with abdominal pain might be diagnosed with urethritis after the conduction of blood tests. However, the cause of the symptoms might be a tumour. Since the DRG does not cover ultrasonography for urethritis, the patient might be misdiagnosed. (Oncologist 1, public)

Oncologist 1 raised significant concerns about the possible negative impacts of physicians' unquestioning reliance on the DRG regulations in their practice of medicine. He was worried that the DRG regulations might lead physicians to feel overly confident in the medical tests and interventions they perform, provided that such interventions are compliant with the regulations. He suggested that this might cause a physician to overlook a symptom, leading to a misdiagnosis.

## 6 | DISCUSSION

This study examined the financial and medical implications of the DRG from the perspectives of physicians in Turkey. One of the main findings was that the DRG regulations have transformed the practice of medicine into a cost-benefit optimisation process for some physicians, particularly those working in public hospitals. This process involves balancing financial concerns related to hospital budgets and physicians' performance-based payments against the medical needs of patients. As a result, physicians confront ethical dilemmas in their daily work. Physicians are morally and legally obligated to use their medical knowledge to provide the necessary care to their patients. However, under the current reimbursement model, they are now also expected to conform to the DRG regulations to protect hospital budgets. For physicians working in public hospitals, fiscal sustainability is critical for securing the continued provision of healthcare services, as well as for receiving the performance-based payments that top up their flat-rate salaries. The payment disparities between the actual costs of hospitalisation and the hospital reimbursement rates, as mentioned in a previous study,<sup>23</sup> not only causes financial burdens on hospitals, but also affects physicians' medical practice in Turkey. Hence, the findings of this study are in line with the previous research suggesting the erosion of the medical profession in Turkey.<sup>39,41</sup>

A second key finding was that financial pressures have been internalised by physicians, as illustrated by their high levels of awareness regarding hospital budgets. Some physicians raised concerns about the SSI-determined reim-

bursement levels and suggested that low reimbursements create financial instability for hospitals, a sentiment that was also expressed by private hospital managers in an earlier study.<sup>32</sup>

The standardisation of reimbursements, coupled with the low rates, not only causes a financial burden for providers, but also impacts their medical practice, leading to the third main finding: Some physicians in this study, especially surgeons, reported concerns about the DRG's standardised reimbursement rates in relation to patients who suffer complications or who have multiple health conditions. This finding is in line with previous studies.<sup>22</sup> Further, limited reimbursements for medications and medical tests in the DRG model appear to be an important obstacle, especially for physicians working at public hospitals. Inability to provide adequate care as envisaged by physicians has been a subject of academic research.<sup>22,24</sup>

Lastly, physicians' experiences with the DRG in Turkey vary across medical specialties. For instance, physicians in specialties such as oncology, which is reimbursed relatively generously, did not report that the DRG has any negative impact on their medical practice. Hence, the extent of the benefit packages for different diagnoses appears to be a determining factor in physicians' perceptions of and experiences with the DRG.

## 7 | CONCLUSION

This article revealed the financial and medical implications of the DRG from the perspectives of physicians in Turkey. Emphasising the transformation of medical practice into a cost-benefit optimisation process, this study suggests that the contemporary medical practice in Turkey involves an ethical dilemma. This manifests itself in cases in which certain physicians feel obligated to prioritise the financial sustainability of the institutions at which they work instead of the medical needs of their patients. In the DRG model, physicians at times consider this prioritisation to be necessary in order to maintain the provision of healthcare services for future patients. The DRG model, as it is practiced in Turkey, may thus require reform, particularly to address the disincentives for providers to offer services to patients with multiple health problems and/or those suffering from complications. There was also a consensus among physicians that the current reimbursement rates must be increased, which should be taken into account by policymakers. Therefore, the present study calls for further research to comprehensively identify the problems with the current DRG model in order to inform policy improvements. Defining the specific issues that require reforms using quantitative research with representative sampling could contribute to the understanding of the broader trends in physicians' perceptions of the DRG reimbursement regulations in Turkey.

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### CONFLICT OF INTEREST

No conflict of interest has been declared by the author.

### ETHICS STATEMENT

Ethical approval for this research was granted by The Ethics Committee for Master and PhD Theses in Social Sciences and Humanities of Bogazici University.

### DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy and ethical restrictions.

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