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ORIGINAL ARTICLE

The determinants of defensive medicine in Italian hospitals: The impact of being a second victim

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KEYWORDS
Defensive medicine;
Medical malpractice;
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Second victim

Abstract
Background: Defensive medicine affects healthcare systems worldwide. The concerns and perception about medical liability could lead practitioners to practise defensive medicine. Second victim is a healthcare worker involved in an unanticipated adverse patient event. The role of being second victim and the other possible determinants for defensive medicine is mostly unclear.
Objective: To study the condition of being second victim as a possible determinants of defensive medicine among Italian hospital physicians.
Design, setting and participants: A secondary analysis of the database of the national survey study on the prevalence and the costs of defensive medicine in Italy that was carried out between April 2014 and June 2014 in 55 Italian hospitals was performed for this study. The demographic section of the questionnaire was selected including the physician's age, gender, specialty, activity volume, grade and the variable being a second victim after an adverse event.
Results: A total sample of 1313 physicians (87.5% response rate) was used in the data analyses. Characteristics of the participants included a mean age 49.2 of years and 19.4 average years of experience. The most prominent predictor for practising defensive medicine was the physicians' experience of being a second victim after an adverse event (OR = 1.88; 95%CI, 1.38–2.57). Other determinants included age, years of experience, activity volume and risk of specialty.
Conclusions: Malpractice reform, effective support to second victims in hospitals together with a systematic use of evidence-based clinical guidelines, emerged as possible recommendations for reducing defensive medicine.

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PALABRAS CLAVE
Medicina defensiva;
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Segunda víctima

Los determinantes de la medicina defensiva en hospitales italianos: el efecto de ser una segunda víctima

Resumen
Antecedentes: La medicina defensiva afecta a los sistemas de salud de todo el mundo. Las preocupaciones y la percepción acerca de la responsabilidad médica podrían llevar a los médicos a ejercer la medicina defensiva. La segunda víctima es un trabajador sanitario que participa en un episodio adverso imprevisto del paciente. Sin embargo, el papel de segunda víctima y otros posibles determinantes de la medicina defensiva son poco claros.
Objetivo: Estudiar la situación de segunda víctima como posible determinante de la medicina defensiva entre los médicos hospitalarios italianos.
Diseño, entorno y participantes: En este estudio se realizó un análisis secundario de la base de datos de la encuesta nacional sobre prevalencia y costes de la medicina defensiva en Italia, que se había llevado a cabo entre abril y junio de 2014 en 55 hospitales italianos. Se seleccionaron los datos personales del cuestionario, como edad del médico, sexo, especialidad, volumen de la actividad, grado y la variable de ser segunda víctima después de un episodio adverso.
Resultados: Se utilizó una muestra total de 1.313 médicos (87,5% de tasa de respuesta) en el análisis de datos. Las características de los participantes incluyeron una media de edad de 49,2 años y 19,4 años de experiencia por término medio. El factor predisponente más importante para la práctica de la medicina defensiva fue la experiencia de los médicos de haber sido segunda víctima después de un episodio adverso (OR = 1,88; IC 95%: 1,38-2,57). Otros factores determinantes fueron: edad, años de experiencia, volumen de la actividad y riesgo de la especialidad.
Conclusiones: La reforma de la responsabilidad médica, un apoyo efectivo a segundas víctimas en hospitales y un uso sistemático de las guías clínicas basadas en la evidencia se presentaron como posibles recomendaciones para la reducción de la medicina defensiva.

Introduction

Defensive medicine (DM) is a deviation from sound medical practice that is induced primarily, but not solely, by the threat of liability claims.[1–4] Therefore, a doctor's attitude towards DM determines the extent to which he deviates from his usual behaviour or that which is considered evidence-based medicine. This deviation can include ordering unnecessary tests, procedures, visits, and hospital admissions or the avoidance of high-risk patients, procedures, or medical services.[5,6] Therefore, DM is expensive and may expose patients to risk of injury from unnecessary tests and procedures, whereas it can deny patients productive care.[4,7]

In the United States, 93% of physicians reported practising DM in a hospital, and 78% of hospital doctors in the United Kingdom and 60% in Israel and in Italy practised DM in a hospital.[2,4,7,8] The percentage of doctors practising DM is higher for some specialties, for example, obstetrics and gynaecology (97%), gastroenterology (94–98%), neurosurgery (75–83%), and orthopaedics and traumatology (96%).[5,9–14]The practice of DM is a significant financial burden in healthcare systems. In the United States, DM is estimated to cost approximately US $50–100 billion annually.[15,16] Two national surveys in the United States estimated the costs of DM in the orthopaedic community to range from US $256.3 million to nearly $2 billion annually.[15,16] In Italy has been recently estimated that DM could absorb 10.71% of the total national health expenditure, with an estimated total cost of about €11.60 billion per year.[8] Another study in Italy estimated the yearly cost of defensive procedures performed by gastroenterologists to be €8637 million in a region with a population of around 10 million inhabitants.[11] At the patient level, the practice of DM was also estimated to cost hospitals US $226, which is the 13% of the mean patient cost (US $1695).[17]

Even though several studies showed how concerns and perception about medical liability – including being sued – could cause practitioners to practise DM, the role of other determinants of DM remain mostly unclear, including the doctor's age and experience.[2,4,9,12,16,18–21] A second victim is 'a healthcare provider involved in an unanticipated adverse patient event, medical error, and/or a patient-related injury, who becomes victimised in the sense that the provider is traumatised by the event'.[22,23] The possible role of being second victim has never been assessed as possible determinants of DM. The objective of this study, therefore, was to identify the determinants of DM among Italian hospital doctors including being a second victim.

Methods

A cross-sectional study design was adopted to perform a secondary analysis of the database of the national survey study on the prevalence and the costs of DM in Italy. The survey was carried out between April 2014 and June 2014 in 55