

Original article

## Financial fraud and health: the case of Spain

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### ABSTRACT

*Objective:* To examine whether financial fraud is associated with poor health sleeping problems and poor quality of life.

*Methods:* Pilot study (n = 188) conducted in 2015–2016 in Madrid and León (Spain) by recruiting subjects affected by two types of fraud (preferred shares and foreign currency mortgages) using venue-based sampling. Information on the monetary value of each case of fraud; the dates when subjects became aware of being swindled, lodged legal claim and received financial compensation were collected. Inter-group comparisons of the prevalence of poor physical and mental health, sleep and quality of life were carried according to type of fraud and the 2011–2012 National Health Survey.

*Results:* In this conventional sample, victims of financial fraud had poorer health, more mental health and sleeping problems, and poorer quality of life than comparable populations of a similar age. Those who had received financial compensation for preferred share losses had better health and quality of life than those who had not been compensated and those who had taken out foreign currency mortgages.

*Conclusion:* The results suggest that financial fraud is detrimental to health. Further research should examine the mechanisms through which financial fraud impacts health. If our results are confirmed psychological and medical care should be provided, in addition to financial compensation.

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## Fraudes financieros y salud: el caso de España

### RESUMEN

*Objetivo:* Explorar si los fraudes financieros se asocian a la mala salud, problemas de sueño y mala calidad de vida.

*Métodos:* Estudio piloto (n = 188) realizado en 2015–2016 en Madrid y León reclutando personas afectadas por dos tipos de fraudes (preferentes e hipotecas multidivisas), por el método *venue-sampling*. Se recogió información sobre el valor monetario del fraude, las fechas en que la persona conocía que había sido estafada, había iniciado una demanda y había recibido una compensación económica. Se compararon las prevalencias de mala salud física y mental, sueño y calidad de vida entre grupos según tipo de fraude y con la Encuesta Nacional de Salud de 2011–2012.

*Resultados:* En esta muestra convencional, las víctimas de fraude financiero presentaron peor salud, más problemas de salud mental y de sueño, y peor calidad de vida que las poblaciones comparables de la misma edad. Aquellos que habían recibido una compensación económica por las pérdidas en preferentes tuvieron mejor salud y calidad de vida que los que no habían recibido compensación y que aquellos que habían contratado hipotecas multidivisas.

*Conclusión:* Los resultados sugieren que los fraudes financieros causan daños a la salud. Deberían investigarse los mecanismos por los que los fraudes financieros causan daños de salud. Si los resultados se confirman, debe proveerse asistencia psicológica y médica, además de las compensaciones económicas.

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*Palabras clave:*

Fraudes financieros

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### Introduction

It appears that prevailing business culture in the banking profession has promoted dishonesty. A randomized trial involving employees at a large Swiss bank demonstrated that, on average,

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banking employees behaved honestly when they did not identify themselves as such; however, when put in a context where they identified themselves as members of the banking industry, a significant proportion of them behaved dishonestly.<sup>1</sup> Such dishonest behaviours can induce bank customers to buy high risk financial products, leading them to unforeseen indebtedness, and even personal bankruptcy. The United States Financial Crisis Inquiry Commission concluded “Widespread failures in financial regulation and supervision proved devastating to the stability of the nation’s financial markets. . . There was a systemic breakdown in accountability and ethics”.<sup>2</sup> In Europe, banking deregulation has been identified as a main cause of the recent economic recession and of massive indebtedness.<sup>3</sup>

Quoting the International Organization of Securities Commission “Complex products were often sold to elderly and senior investors with little investing experience and market knowledge”.<sup>4</sup> Financial frauds have caused loss of lifetime savings to millions of citizens, both small savers and those accepting abusive mortgages.<sup>2</sup> Such financial frauds may have harmful consequences for the health of those affected, but little research has been conducted on these consequences.

We advance the hypothesis that fraudulent behaviours by financial institutions are associated with substantial physical and mental health problems in the affected populations. Data from a pilot study in Spain were used to assess health status of populations affected by financial frauds comparing with the health of the general populations to which they belong. We also examined the potential relationship between financial compensation obtained through legal processes and adverse physical and mental health outcomes and poor quality of life.

#### Context of the study

Spain has been strongly affected by the recent economic crisis caused by the behaviour of financial institutions. Many instances of financial fraud occurred during the period between 2007 and 2014.<sup>5-7</sup> Spain was vulnerable to widespread fraudulent behaviours in the banking sector due to: 1) collusion between political power and board of directors of saving banks; 2) an exacerbation of the recession linked to the falling value of the real estate market caused by irresponsible lending.<sup>8</sup> Many fraudulent behaviours were carried out by trusted financial advisors at local bank branches with whom small savers had long-standing trusting relations.

We will consider here two main forms of fraud. First, those that originated from the sale of complex products to consumers with the purpose of mobilizing the savings of potential small investors to rescue banks. This fraud is called *preferentes* in Spanish for preferred shares, hybrid products which are best defined as complex debt instruments according to the European Securities and Market Authority.<sup>9</sup> The Spanish Parliamentary Commission appointed to investigate the commercialization of *preferentes* estimated that about 3 million small savers were affected in the period between from 1998 to 2012.<sup>10</sup> This constitutes a sizeable proportion (8%) of the 37 million adults over 20 years of age in Spain (Census, 2010). A second type of fraud consisted in inducing clients to contract mortgages in a foreign currency (Japanese Yens or Swiss Francs), with the argument that the interest rate applicable to the currency in which the mortgage was denominated was lower than the interest rate applicable in euros, for example, 0.5% for loans in Swiss Franc loans instead of 5% for the Euribor. Banks did not inform clients on the forecasted instability of the euro with regard to the Japanese yen and Swiss franc. With decreasing exchange rates, mortgages labelled in these currencies could hit skylines values in euros, leading to indebtedness and capital loss in real terms. As an illustration, by September 2011, those who had contracted an average loan of

200,000 euros in 2008, had seen their mortgage increase to 280,000, even though monthly payments were hitting new highs without foreseeable end. An equivalent home loan in euros would imply equal monthly payments and a mortgage value reduced to 180,000 euros. This fraud is referred to as a foreign currency home loan or *multidivisas* in Spanish.

#### Methods

##### Design

This is a pilot study. Data was collected between July 2015 and July 2016 in meeting places located mostly in the province of Leon (city of Leon and county La Baneza) and the Madrid metropolitan region. Since the list of small investors involved in bank frauds is not available, we recruited volunteers through the members of associations of people whose savings were affected by financial frauds, following the principles of venue sampling for hard to reach populations.<sup>11</sup> We asked volunteers who belong to associations of citizens affected by these frauds to recruit other people they know who share that condition, irrespective of the absolute amount of the fraud or of their membership in any association. Due to budgetary and time restrictions we included collaborators in Madrid and in Leon. For the *preferentes* group, participants were recruited at Madrid and Leon, but the study sample includes participants who resided in other provinces from the region of Castilla-Leon. For the *multidivisas* group, data was collected at the ASUFIN office ([www.asufin.com](http://www.asufin.com)) located in downtown Madrid and while most participants resided in Madrid, a few resided in cities of Andalusia and the Canary Islands. Most participants are from urban areas of more than 50,000 inhabitants.

##### External data base for comparison and age -adjustment

The 2011-2012 National Health Survey is accessible at the Spanish Ministry of Health web site.

##### Data collection

Data were collected by self-administered questionnaire. The questionnaire is available upon request. Most questions on sociodemographic variables, and health outcomes were drawn from the 2011-2012 National Health Survey to increase comparability. A section on financial frauds characteristics was added.

##### Outcomes

Psychological distress was measured by the General Health Questionnaire (GHQ-28), a psychiatric screening instrument composed of four subscales (somatic symptoms, anxiety and insomnia, social dysfunction and depression), each of seven items.<sup>12</sup> Individuals with a GHQ-28 above or equal to 5 were considered as having clinically relevant symptoms indicative of need of mental health care.<sup>13</sup> Self-reported diagnoses of psychiatric disease after 2008 and frequency of anxiety crises after 2008 were also recorded.

Resilience, the courage and adaptability in face of life misfortune, was assessed with the Wagnild and Young<sup>14</sup> resilience scale, which is composed of 14 items in a scale from 1 to 7.<sup>14</sup>

Self-rated health is a valid indicator of health according to the general literature.<sup>15</sup> Participants were asked: “Would rate your health as very good, good, fair, poor, or very poor?”. Self-rated health was considered good if respondents answered “very good” or “good”, and it was considered poor if respondents answered “fair”, “poor” or “very poor”.

Chronic conditions diagnosed after the year of the reported fraud (high blood pressure, diabetes, cancer, chronic lung disease,

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