

Jesús Montero Marín

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-12): A new definition of burnout
through a differential
characterization of the syndrome

Departamento
Medicina, Psiquiatría y Dermatología

Director/es
García Campayo, Javier

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Universidad
Zaragoza

Tesis Doctoral

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QUESTIONNAIRE" (BCSQ-36/BCSQ-12): A NEW
DEFINITION OF BURNOUT THROUGH A
DIFFERENTIAL CHARACTERIZATION OF THE
SYNDROME

Autor

Jesús Montero Marín

Director/es

García Campayo, Javier

UNIVERSIDAD DE ZARAGOZA

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e-mail: jmontero@unizar.es
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European PhD Thesis

**The 'Burnout Clinical Subtype Questionnaire'
(BCSQ-36/BCSQ-12)**

**A new definition of burnout through a differential
characterization of the syndrome**

Author:

Jesús Montero-Marín

Director:

Javier García-Campayo

**University of Zaragoza, Faculty of Medicine
Department of Medicine, Psychiatry and Dermatology**



**Universidad
Zaragoza**

Zaragoza, 2012

To my family,
because my efforts have also been their efforts



**Universidad
Zaragoza**

Dr. JAVIER GARCIA CAMPAYO
Profesor Médico Asociado

Departamento de Medicina, Psiquiatría y Dermatología
FACULTAD DE MEDICINA
Universidad de Zaragoza

D. JAVIER GARCIA CAMPAYO

Profesor Asociado de la Facultad de Medicina de la Universidad de Zaragoza

CERTIFICA:

Que las investigaciones que se exponen en la Memoria: **El 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-36/BCSQ-12): una nueva definición del burnout a través de una caracterización diferencial del síndrome**, presentada por el licenciado **D. JESÚS MONTERO MARÍN**, para aspirar al grado de Doctor por la Universidad de Zaragoza, han sido realizadas bajo mi dirección en todas las etapas, reflejando con toda fidelidad los resultados obtenidos. Tras haber revisado esta Memoria, la encuentro conforme para ser presentada, defendida en acto público y juzgada por el Tribunal que al efecto se designe.

Lo que firmo en Zaragoza, a 22 de diciembre de 2012

Fdo.: Dr. Javier Garcia Campayo



**Universidad
Zaragoza**

Dr. JAVIER GARCIA CAMPAYO
Profesor Médico Asociado

Departamento de Medicina, Psiquiatría y Dermatología
FACULTAD DE MEDICINA
Universidad de Zaragoza

D. JAVIER GARCIA CAMPAYO

Profesor Asociado de la Facultad de Medicina de la Universidad de Zaragoza

AUTORIZA:

La presentación en la modalidad de compendio de publicaciones de la Tesis Doctoral: **El 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-36/BCSQ-12): una nueva definición del burnout a través de una caracterización diferencial del síndrome'**, presentada por el Licenciado **D. JESÚS MONTERO MARÍN**, para optar al Grado de Doctor por la Universidad de Zaragoza.

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Fdo.: Dr. Javier Garcia Campayo

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“El hombre que trabaja en silencio, sabiendo que el silencio es trabajo, encuentra la paz”.

(Bhagavad Gītā, siglo V a.c.)

“While we may say that the essentialist interpretation reads a definition normally, that is to say, from the left to the right, we can say that a definition, as it is normally used in modern science, must be read from the right to the left; for it starts with the defining formula, and asks for a short label for it”.

(Karl Popper, Two kinds of definitions, 1945)

Modalidad de la Tesis [Thesis Mode]

La tesis que presentamos a continuación, adquiere la forma de un compendio de trabajos de investigación, previamente publicados en revistas de divulgación científica del ámbito de la salud, e incluye un total de seis artículos. En la Tabla 1 se muestra la referencia completa de cada uno de los artículos, el capítulo de la tesis dentro del cual se encuentra ubicado, el número de identificación digital del objeto (DOI), la dirección web donde se encuentra disponible, así como la correspondiente licencia respecto a los derechos de autoría. Aunque todos los capítulos de este volumen, están orientados hacia el objetivo general señalado en el apartado correspondiente, cada uno de ellos presenta entidad propia, pudiendo ser leídos de manera independiente. Los artículos originales se encuentran disponibles de forma gratuita en los espacios web señalados, puesto que se trata de publicaciones de 'acceso abierto'. Los términos de la licencia permiten su uso, distribución y reproducción en cualquier medio y para cualquier fin, siempre y cuando se cite adecuadamente la fuente original.

De acuerdo con la normativa de presentación de tesis doctorales, incluida en el reglamento de la Universidad de Zaragoza (acuerdo del Consejo de Gobierno de la Universidad del 17 de diciembre de 2008, por el que se aprueba el reglamento sobre Tesis Doctorales), para las modalidades de Doctorado con mención Europea y Doctorado por compendio de publicaciones, los artículos científicos que dan cuerpo a esta tesis han sido redactados en lengua inglesa. Además, han sido incluidos en lengua española un resumen, la introducción, discusión general y conclusiones, tal y como exige dicha normativa reguladora.

Aspectos éticos [Ethical Issues]

El presente trabajo de investigación, fue conducido a partir de las normas éticas establecidas por la World Medical Association en la Convención de Helsinki, actualizadas en la modificación de Seúl, así como a partir de las normas enunciadas por la World Psychiatric Association en la Declaración de Madrid. Fue solicitado el consentimiento informado a todos los sujetos participantes antes de ser incluidos en el estudio. Al finalizar éste, se envió un detallado informe a cada participante, de manera anónima, con la corrección y explicación de sus resultados, como deferencia y agradecimiento por su favorable disposición a participar. El estudio fue aprobado por el Comité Ético Regional del Gobierno de Aragón. No hubo intereses en competencia en ninguno de los estudios realizados.

Tabla 1: Tesis como recopilación de artículos previamente publicados

Chapter	Article
2	<p>Montero-Marín J, García-Campayo J, Mera DM, López Y: A new definition of burnout syndrome based on Farber's proposal. <i>Journal of Occupational Medicine and Toxicology</i> 2009, 4:31. doi:10.1186/1745-6673-4-31</p> <p>http://www.occup-med.com/content/4/1/31/ © 2009 Montero-Marín et al; licensee BioMed Central Ltd.</p>
3	<p>Montero-Marín J, García-Campayo J: A newer and broader definition of burnout: Validation of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36). <i>BMC Public Health</i> 2010, 10:302. doi:10.1186/1471-2458-10-302</p> <p>http://www.biomedcentral.com/1471-2458/10/302/ © 2010 Montero-Marín et al; licensee BioMed Central Ltd.</p>
4	<p>Montero-Marín J, García-Campayo J, Fajó-Pascual M, Carrasco JM, Gascón S, Gili M, Mayoral-Cleries F: Sociodemographic and occupational risk factors associated with the development of different burnout types: the cross-sectional university of Zaragoza study. <i>BMC Psychiatry</i> 2011, 11:49. doi:10.1186/1471-244X-11-49</p> <p>http://www.biomedcentral.com/1471-244X/11/49/ © 2011 Montero-Marín et al; licensee BioMed Central Ltd.</p>
5	<p>Montero-Marín J, Skapinakis P, Araya R, Gili M, García-Campayo J: Towards a brief definition of burnout syndrome by subtypes: development of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). <i>Health and Quality of Life Outcomes</i> 2011, 9:74. doi:10.1186/1477-7525-9-74</p> <p>http://www.hqlo.com/content/9/1/74/ © 2011 Montero-Marín et al; licensee BioMed Central Ltd.</p>
6	<p>Montero-Marín J, Araya R, Oliván-Blazquez B, Skapinakis P, Martínez-Vizcaino V, García-Campayo J: Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types. <i>BMC Public Health</i> 2012, 12:922. doi: 10.1186/1471-2458-12-922</p> <p>http://www.biomedcentral.com/1471-2458/12/922 © 2012 Montero-Marín et al; licensee BioMed Central Ltd.</p>
7	<p>Montero-Marín J, Monticelli F, Casas M, Román A, Tomás I, Gili M, García-Campayo J: Burnout syndrome among dental students: A short version of the 'Burnout Clinical Subtype Questionnaire' adapted for students (BCSQ-12-SS). <i>BMC Medical Education</i> 2011, 11:103. doi:10.1186/1472-6920-11-103</p> <p>http://www.biomedcentral.com/1472-6920/11/103 © 2011 Montero-Marín et al; licensee BioMed Central Ltd.</p>

Objetivo Principal [Main Aim]

El objetivo fundamental de la presente tesis doctoral, ha sido desarrollar una nueva definición del síndrome de burnout, que contemple diferentes formas de manifestación del trastorno.

Objetivos Específicos [Specific Aims]

1. Identificar las propiedades características de distintos subtipos de burnout, articulando una estructura conceptual teórica mediante un criterio de clasificación.
2. Construir dos definiciones operativas, una extensa y otra breve, que permitan evaluar de forma válida y fiable distintos subtipos de burnout en trabajadores.
3. Desarrollar una adaptación de la definición operativa abreviada de los subtipos de burnout, que pueda ser aplicada en estudiantes.
4. Estimar el poder explicativo de las nuevas definiciones tipológicas del burnout, respecto a una medida estándar del síndrome.
5. Descubrir los factores sociodemográficos y laborales generales de mayor valor predictivo, sobre los distintos subtipos de burnout.

Sinopsis [Synopsis]

El exceso de estrés y de malestar en el trabajo, crea un caldo de cultivo propicio para el desarrollo del síndrome de burnout, un estado de agotamiento y disminución del interés a largo plazo que puede afectar la salud. La sobrecarga, la monotonía o la ausencia de reconocimiento, entre otros factores, pueden actuar como importantes catalizadores del burnout. Mediante la presente tesis doctoral, han sido analizados los factores que influyen en el desarrollo de **tres diferentes formas** de manifestación del trastorno, los subtipos: 'frenético', 'sin-desafíos' y 'desgastado'. El subtipo **frenético** está presente en empleados muy involucrados y exageradamente ambiciosos, que se encuentran sobrecargados por las demandas de su puesto. El subtipo **sin-desafíos** aparece en trabajadores indiferentes, con cierta tendencia a experimentar aburrimiento y ausencia de oportunidades de crecimiento personal. El subtipo **desgastado** surge entre quienes hacen caso omiso de sus responsabilidades, debido a la ausencia de control que perciben sobre los resultados de su trabajo y por la falta de reconocimiento que experimentan en su entorno laboral. El '**Cuestionario de Subtipos Clínicos de Burnout**', desarrollado en el presente trabajo de investigación, es un instrumento muy útil para la evaluación de las causas subyacentes del burnout, a partir de una diferenciación del síndrome mediante subtipos clínicos, lo cual posibilita el diseño de estrategias específicas de intervención terapéutica.

Resumen [Summary]

“En realidad, no se trataba sino del afán de un hombre de acción por saber que su persona cumplía de pies a cabeza con todas las normas de la corrección y la pulcritud necesarias para sentirse seguro en su posición. Por otro lado, las exigencias a las que la gente y él mismo sometían su talento y sus fuerzas cada vez eran mayores. Lo desbordaban las obligaciones, ya fueran relativas a la esfera privada o a la pública”.

(Thomas Mann, Los Buddenbrook, 1901)

Con el apartado 'Resumen', nos proponemos justificar la unidad temática de los trabajos de investigación incluidos en la presente disertación, presentando su contenido de forma abreviada. Para ello, hemos incluido en cada subapartado los antecedentes teóricos, los objetivos secundarios o específicos de cada estudio, la metodología utilizada, los resultados obtenidos, sus limitaciones, así como los principales avances aportados al conocimiento en el área objeto de estudio.

La estructura de esta tesis es la siguiente: el **capítulo primero**, ofrece una visión general del burnout, con la intención de introducir al lector en su temática. El **capítulo segundo**, aporta una nueva propuesta teórica del síndrome, al integrar diferentes subtipos o manifestaciones clínicas. El **capítulo tercero**, proporciona una definición operativa del burnout, fundamentada en el marco teórico desarrollado en el trabajo anterior. El **capítulo cuarto**, establece posibles asociaciones entre los subtipos de burnout identificados y algunas características sociodemográficas y laborales generales. El **capítulo quinto**, presenta una definición operativa abreviada de los subtipos, a partir de las propiedades que mayor convergencia presentan con el estándar de burnout al uso. El **capítulo sexto**, delimita la posible utilidad diferencial de ambas definiciones, la extensa y la breve, a partir de su capacidad explicativa. El **capítulo séptimo**, propone una adaptación de la definición tipológica breve del burnout, para ser utilizada en el ámbito ocupacional estudiantil. El **capítulo octavo**, plantea una discusión general, poniendo sobre la mesa los avances, las limitaciones y las posibles líneas futuras de investigación. En la siguiente sección se incluyen las **conclusiones** del estudio. El apartado **apéndices** contiene los cuestionarios desarrollados, las características bibliométricas de las revistas donde han sido publicados los artículos incluidos en la tesis y las principales aportaciones del autor de ésta en cada uno de ellos.

Capítulo 1 [Chapter 1]

Mediante el capítulo primero, que lleva por título 'Introducción', hemos tratado de mostrar al lector una vista panorámica amplia del fenómeno del síndrome de burnout. Para ello, se ha llevado a cabo una revisión exhaustiva de la bibliografía correspondiente a los autores más representativos del área objeto de estudio.

En primer lugar, hemos señalado que el paradigma económico dominante en occidente, supone un gran reto a la capacidad de adaptación de los trabajadores^{1,2}. En torno a un 30% de los empleados de los estados miembros de la Unión Europea, podrían presentar altos niveles de estrés en su puesto y la tendencia de los últimos años señala que este porcentaje va en aumento^{3,4}. Alrededor de un 12% de la población europea

podría padecer el síndrome de burnout^{5,6}. Estrés y burnout, son considerados ya epidemias en las sociedades modernas, con implicaciones en la salud, en el bienestar y en la capacidad de trabajo de las personas^{7,8}.

El burnout, lleva siendo objeto de estudio científico cerca de cuarenta años. Ha sido entendido, como un proceso de acomodación psicológica ante situaciones de estrés laboral crónico, y tradicionalmente ha sido definido mediante las dimensiones: agotamiento, cinismo e ineficacia⁹. El agotamiento, es la sensación de no poder dar más de sí en el trabajo. El cinismo, se refiere a la falta de interés y a la pérdida de significado en el puesto. La ineficacia, es la sensación de incompetencia, como resultado de no hacer adecuadamente las tareas^{9,10}.

Entre las teorías que han tratado de argumentar el origen y desarrollo del burnout, se encuentran aquellas centradas en la explicación del estrés, como el modelo del ajuste persona-entorno¹¹ o el modelo transaccional¹². Se ha intentado explicar el síndrome también de manera secuencial, a partir de las dimensiones clásicas referidas arriba, aunque esta perspectiva no ha quedado libre de ciertas inconsistencias¹³. Otros enfoques han hecho énfasis, en cómo las características del puesto afectan a la salud y la motivación de los trabajadores, como el modelo de las demandas-control¹⁴, el modelo de las demandas-recursos¹⁵ o el modelo de los desequilibrios entre los esfuerzos y las recompensas¹⁶. Por otro lado, se ha defendido que la compleja idiosincrasia del síndrome, debida al entorno social dentro del cual se origina, exige un abordaje más amplio que la mera evaluación de los síntomas individuales contemplados clásicamente. Así, desde las teorías del intercambio social, se ha prestado especial atención a los procesos de comparación social¹⁷, al concepto de equidad o reciprocidad¹⁸ y a la idea de conservación de los recursos disponibles¹⁹. Otros modelos, como el de las áreas de la vida laboral, atienden al conflicto de valores entre la persona y la organización, tratando de integrar de manera ecléctica algunas de las explicaciones anteriores^{20,21}. Por último, se ha tratado de entender el burnout, mediante la diferenciación de perfiles clínicos^{22,23}.

En el burnout predomina la fatiga, al tiempo que simultáneamente ocurren otros síntomas atípicos como los mareos, jaquecas, migrañas, dolores músculo-esqueléticos, molestias gastrointestinales, gastritis, úlceras, urticarias, asma, procesos infecciosos e inflamatorios y trastornos cardiovasculares. También suele verse acompañado de alteraciones del sueño, estados de ansiedad, depresión, sensibilidad interpersonal, hostilidad, falta de concentración, incapacidad para relajarse, e incluso pueden presentarse conductas que perjudican la salud, como puede ser el abuso de sustancias²⁴. Todos estos síntomas están relacionados con el ambiente de trabajo y se manifiestan en personas normales sin ningún tipo de psicopatología mayor. El burnout lleva consigo además, una serie de actitudes y

conductas negativas que disminuyen la eficacia, el rendimiento y la calidad del servicio, como por ejemplo: la infracción de normas, los conflictos interpersonales, las rotaciones excesivas, el absentismo y la renuncia o abandono del puesto²⁵.

El síndrome de burnout, no posee una entidad nosológica propia en las clasificaciones psiquiátricas actuales, aunque lo más recomendable parece ser contemplarlo como una patología con entidad propia²⁴. Tradicionalmente, ha sido evaluado de manera dimensional, mediante las distintas versiones del cuestionario 'Maslach Burnout Inventory' (MBI)^{10,26}, considerado *gold standard* durante largo tiempo. No obstante, este instrumento presenta algunas debilidades psicométricas, no ha sido desarrollado a partir de la observación de casos clínicos y no se fundamenta sobre una teorización sistemática, sino que ha sido propuesto inductivamente, mediante la agrupación factorial de un conjunto más bien arbitrario de ítems, por lo que habría de ser utilizado con cierta precaución²⁷.

Es por ello, que los esfuerzos dedicados al desarrollo de nuevos instrumentos de medida del burnout, resultan interesantes, especialmente si se ven orientados al origen y evolución diferencial del trastorno, a fin de facilitar su reconocimiento temprano y para promover el desarrollo de intervenciones más específicas^{28,29}.

Capítulo 2 [Chapter 2]

El segundo capítulo, lleva por título 'Characterization of a new definition of burnout' y se corresponde con el artículo 'A new definition of burnout syndrome based on Farber's proposal', publicado en la revista *Journal of Occupational Medicine and Toxicology*³⁰.

Aunque han sido construidas diversas definiciones del síndrome de burnout, la mayor parte de los autores lo consideran un fenómeno más o menos uniforme, caracterizado por cierto estado de agotamiento y pérdida de interés, como resultado de un largo proceso de estrés laboral crónico⁹. Sin embargo, los resultados de la experiencia clínica, sugieren la necesidad de identificar distintas formas de manifestación del trastorno, si queremos adoptar estrategias de intervención ajustadas a la línea de desarrollo de cada caso particular^{22,23,31}. En este sentido, tres perfiles de burnout han sido propuestos de manera preliminar: los subtipos de burnout 'frenético', 'sin-desafíos' y 'desgastado', cada uno de los cuales afrontaría de distinto modo los sentimientos de frustración en el trabajo^{22,23,31-35}. El subtipo de burnout frenético, trabajaría cada vez más duro hasta el agotamiento, buscando éxitos a la altura de la tensión ocasionada por sus esfuerzos. El subtipo de burnout sin-desafíos, estaría formado por aquellos trabajadores insuficientemente retados, que han de afrontar condiciones laborales

monótonas o poco estimulantes, que no proporcionan la satisfacción necesaria. El subtipo de burnout desgastado, estaría constituido por aquellos sujetos que rápidamente se rinden frente al estrés o la ausencia de gratificación.

En este capítulo, hemos tratado de definir las propiedades características de cada uno de los subtipos de burnout. También hemos pretendido articular una estructura conceptual integrada, por medio de un criterio de clasificación, con la hipótesis de que existe una dimensión a través de la cual pueden organizarse conjuntamente las propiedades de los subtipos.

Para llevar adelante el estudio, se utilizó un enfoque de investigación cualitativo, gracias a un análisis documental de los casos clínicos de burnout reportados por Farber^{22,23,31-35}. Haciendo uso de un análisis de contenido vertical e interpretativo, sustentado sobre la perspectiva analítica de la teoría fundamentada³⁶⁻³⁸, pudimos descubrir las características definitorias de los subtipos clínicos. Las propiedades del subtipo frenético, resultaron ser su gran implicación, ambición y sobrecarga. La implicación, es la inversión de todo el esfuerzo necesario hasta superar las dificultades; la ambición, una gran necesidad de obtener grandes triunfos y logros; y la sobrecarga, el hecho de arriesgar la salud y descuidar la vida personal en la persecución de buenos resultados. Las propiedades del subtipo sin-desafíos fueron su indiferencia, aburrimiento y falta de desarrollo personal. La indiferencia es despreocupación, poco interés y falta de ilusión por las tareas; el aburrimiento, la vivencia del trabajo como algo mecánico, rutinario y con poca variedad de actividades; y la falta de desarrollo, el deseo de dedicarse a otro trabajo en el que puedan actualizarse mejor las propias capacidades. Las propiedades del subtipo desgastado fueron el abandono, la percepción de falta de control sobre los resultados del trabajo y la sensación de falta de reconocimiento por los esfuerzos. El abandono, es la desatención o negligencia como respuesta ante cualquier dificultad; la falta de control, la sensación de impotencia resultado de tratar con situaciones que se encuentran fuera de control; la falta de reconocimiento, la creencia de que en la organización donde se trabaja no se tienen en cuenta el esfuerzo y la dedicación.

Por medio de un análisis semiótico, llevado a cabo desde una perspectiva analítica estructuralista³⁹⁻⁴¹, conseguimos finalmente sistematizar la tipología. La categoría candidata a articular el modelo, fue el grado de 'dedicación' hacia las tareas del trabajo. El nivel de dedicación del subtipo de burnout frenético, sería alto, como consecuencia de su gran implicación; el del subtipo de burnout sin-desafíos, sería intermedio, debido a su indiferencia; y el del subtipo de burnout desgastado, sería bajo, como resultado de su abandono. Así, el criterio de clasificación grado de dedicación hacia las tareas del trabajo, permitió integrar conceptualmente la totalidad de la propuesta tipológica del burnout descrita arriba.

La principal limitación de este trabajo, provino de algunos casos clínicos que no se ajustaron al modelo propuesto, tal vez como resultado de posibles desplazamientos de un subtipo a otro a lo largo del tiempo. La muestra de casos objeto de estudio, pertenecientes exclusivamente a ocupaciones de tipo asistencial o de servicios, también limitó las posibilidades de generalización. Sin embargo, una triangulación metodológica de perspectivas, estrategias y análisis inter-jueces, aportó la necesaria consistencia al estudio, ampliando su alcance, rigor y profundidad. La principal contribución de este trabajo, fue la generación de una nueva definición teórica del burnout, que entiende el desarrollo del síndrome de manera diferencial, en función de la dedicación con la que el trabajador se entrega a las tareas. Esta conceptualización, aporta un nuevo marco teórico enfocado en la génesis y desarrollo del trastorno, que podría facilitar el establecimiento de formas de evaluación e intervención más específicas, según las características particulares de cada caso.

Capítulo 3 [Chapter 3]

El tercer capítulo, lleva por título 'Validation of a newer definition of burnout' y se corresponde con el artículo original 'A newer and broader definition of burnout: validation of the Burnout Clinical Subtype Questionnaire (BCSQ-36)', publicado en la revista *BMC Public Health*⁴².

El síndrome de burnout, ha sido delimitado clásicamente mediante las dimensiones sintomáticas estándar: agotamiento, cinismo e ineficacia^{9,10}. Desde un punto de vista clínico, hemos visto que también ha sido caracterizado a través de los subtipos: frenético, sin-desafíos y desgastado^{22,23,31-35}. El subtipo frenético, se caracterizaría por una gran implicación, ambición y sobrecarga; el subtipo sin-desafíos, por su indiferencia, aburrimiento y falta de desarrollo personal; y el subtipo desgastado, por la sensación de falta de control sobre los resultados, falta de reconocimiento de los propios esfuerzos y abandono de las responsabilidades. También hemos dicho que cada uno de estos subtipos, afrontaría el estrés y la frustración generada en el trabajo, con diferente nivel de dedicación³⁰.

A partir de este marco teórico, y con la hipótesis de que los subtipos clínicos de burnout pueden ser identificados con un instrumento que presente adecuadas características psicométricas, hemos tratado de construir una nueva definición operacional del síndrome, el 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-36), mediante el cual se intentaron examinar posibles diferencias entre dichos subtipos, en función del sexo y de la temporalidad del contrato de trabajo.

Para ello, se utilizó un enfoque de investigación cuantitativo, por medio de un diseño de corte transversal, con una muestra multiocupacional de trabajadores de

universidad, seleccionados aleatoriamente y reclutados por medio de una encuesta on-line ($n = 409$). Un grupo de expertos, propuso una serie de ítems a partir de una tabla de especificación de contenidos, con la intención de recoger todos los aspectos teóricos del modelo⁴³⁻⁴⁵. Se analizó el comportamiento de todos los ítems propuestos, seleccionando aquellos con mayor capacidad discriminativa. También se evaluó la validez de constructo, llevando a cabo un análisis factorial exploratorio (AFE), por el método de componentes principales con rotación ortogonal varimax, sobre la batería de ítems finalmente seleccionados. Con antelación, fueron evaluados los supuestos necesarios para llevar a cabo este tipo de análisis⁴⁷. Se decidió el número de componentes, utilizando el criterio de Kaiser y el gráfico de sedimentación de Cattel^{48,49}. Se determinó la pertenencia de cada ítem, por la presencia de un peso factorial mayor de 0,5 en un componente específico⁵⁰. Se evaluó la consistencia interna, por medio de estadísticos como el alpha de Cronbach o los coeficientes ítem-resto. Además, se estimó la validez convergente respecto al estándar MBI⁵¹, utilizando la r de Pearson. Las diferencias por sexo y temporalidad del contrato, fueron evaluadas con las pruebas t de Student y U de Mann-Whitney, en función de la distribución de los datos.

La solución factorial de las escalas correspondientes a los subtipos, replicó la configuración establecida hipotéticamente, con unos índices de discriminación adecuados, todos ellos positivos. La fiabilidad de las escalas y sub-escalas, resultó buena en todos los casos. Los subtipos de burnout, presentaron relaciones de diferente magnitud con las dimensiones estándar agotamiento, cinismo e ineficacia, siendo más altas, cuanto menor era el nivel de dedicación. En otras palabras, el perfil frenético, presentó las relaciones más bajas con el criterio, mientras que el perfil desgastado, mostró las relaciones de mayor magnitud. El sexo, no resultó determinante en el establecimiento de diferencias entre los subtipos, pero la temporalidad de los contratos, sí lo fue. Los trabajadores temporales, mostraron mayores puntuaciones en el perfil frenético, mientras que los indefinidos, las presentaron en los perfiles sin-desafíos y desgastado.

La descripción del burnout contenida en la definición clásica del MBI, podría no incluir aspectos importantes desde un punto de vista clínico, como los presentes en el perfil frenético. Este perfil, parece situarse próximo al concepto de 'adicción al trabajo', y del mismo modo sufriría de agotamiento⁵². Los sujetos excesivamente comprometidos en el trabajo, presentan una gran probabilidad de desarrollar el síndrome³², y en la actualidad podrían no estar siendo reconocidos a tiempo. Por otro lado, los trabajadores sin-desafíos, habrían perdido interés por las tareas de su puesto, al verse afectados por la falta de satisfacción o la monotonía, y tal vez por ello se habrían vuelto cínicos⁵³. El perfil desgastado, podría ser el

perfil más aquejado por el síndrome desde un punto de vista clásico, al padecer una gran apatía, fatiga emocional y ausencia de calidad de vida en el trabajo⁵⁴⁻⁵⁶. Hemos de decir que este estudio resultó exclusivamente psicométrico, por lo que no fue posible contrastar la validez predictiva del modelo. No obstante, la utilización de un software especialmente diseñado para evitar posibles errores de transcripción, permitió un elevado control sobre la calidad de los datos. En general, el comportamiento del BCSQ-36, permitió suponer que se trata de un instrumento muy útil para la evaluación diferencial del subtipo de burnout experimentado.

Capítulo 4 [Chapter 4]

El cuarto capítulo, titulado 'Risk factors associated with different burnout types', se corresponde con el artículo 'Sociodemographic and occupational risk factors associated with the development of different burnout types: the cross-sectional University of Zaragoza study', publicado en *BMC Psychiatry*⁵⁷.

En los estudios anteriores, hemos descrito la existencia de tres diferentes subtipos de burnout^{22,23,31-35}. Hemos visto que el perfil frenético, se da en sujetos muy implicados y ambiciosos, que sacrifican la salud y la vida personal por atender las demandas del trabajo; el perfil sin-desafíos, es característico en aquellos trabajadores indiferentes y aburridos que no se desarrollan personalmente en su puesto; el perfil desgastado, aparece en personas que sienten falta de control sobre los resultados de su trabajo, falta de reconocimiento por sus esfuerzos, y que optan finalmente por abandonar sus responsabilidades³⁰. También hemos dicho, que aspectos estructurales como la naturaleza temporal de los contratos, permiten establecer diferencias entre los subtipos⁴². Por medio de este nuevo estudio, hemos tratado de descubrir los factores sociodemográficos y laborales de mayor valor predictivo sobre cada uno de los subtipos de burnout, con la hipótesis de que existen características sociodemográficas y laborales generales, que hacen posible establecer diferencias entre todos ellos.

Para ello, se utilizó un enfoque metodológico cuantitativo, con un diseño transversal sobre la misma muestra de trabajadores de universidad, referida en el apartado anterior (n = 409). La presencia de los subtipos de burnout, fue valorada mediante el BCSQ-36⁴². El grado de asociación entre las distintas variables, se evaluó utilizando odds ratio (OR) ajustadas, obtenidas a partir del cálculo de modelos de regresión logística binaria multivariante⁵⁸. Aunque las dimensiones del burnout suelen ser consideradas variables continuas^{10,59}, algunos autores las han interpretado desde un punto de vista dicotómico, con el propósito de distinguir los sujetos con serios síntomas de burnout^{60,61}. En ausencia de puntos de corte

previamente establecidos sobre las escalas del BCSQ-36, fueron considerados sujetos con puntuaciones elevadas, aquellos situados por encima del tercer cuartil^{62,63}. La inclusión de las variables independientes sociodemográficas y laborales en los modelos multivariantes, estuvo determinada por un análisis de regresión logística binaria simple previo. Aquellos factores que arrojaron resultados estadísticamente significativos, a nivel bivariante en el test de Wald ($p < 0.05$), fueron incluidos en los modelos multivariantes correspondientes. El ajuste de los modelos, fue evaluado gracias al test de Hosmer-Lemeshow, y su poder discriminativo, por medio del área bajo la curva ROC. Fueron calculados valores p de tendencia lineal, en aquellas variables originalmente medidas de manera continua, que arrojaron resultados significativos en los modelos multivariantes.

Estos modelos, permitieron estimar la probabilidad de presentar altas puntuaciones en los diferentes perfiles de burnout, en función de características sociodemográficas y laborales generales. Por ejemplo, pudo observarse, que aquellos individuos que trabajaban más de 40 horas semanales, presentaban un riesgo mayor de desarrollar altas puntuaciones en el perfil frenético, comparado con aquellos que trabajaban menos de 35 horas. Los trabajadores en puestos de administración y servicios, presentaban mayor riesgo de desarrollar altas puntuaciones en el perfil sin-desafíos, comparado con los trabajadores docentes e investigadores. Aquellos empleados con más de dieciséis años trabajando en la misma organización, presentaban un riesgo mayor de desarrollar altas puntuaciones en el perfil desgastado, comparado con aquellos que llevaban menos de cuatro años de servicio. El ajuste de los modelos resultó adecuado, y su capacidad predictiva moderadamente elevada, en todo caso, significativamente mejor que la proporcionada por un mero artefacto aleatorio. Fueron observadas relaciones de tipo lineal, entre el número de horas semanales de trabajo y el subtipo frenético, y entre la antigüedad o tiempo de servicio y el subtipo desgastado.

Este estudio, ha sido pionero a la hora de sugerir la existencia de asociaciones entre diferentes perfiles de burnout, y algunas características sociodemográficas y laborales generales, de forma congruente con la definición original de cada uno de los subtipos^{22,23}. Es cierto que el tipo de diseño utilizado, no permitió posicionarse de firme respecto a posibles relaciones causales entre las variables, aunque el hecho de que los factores sociodemográficos y laborales existiesen y actuasen con anterioridad al momento de la medida, junto con la evidencia aportada por las relaciones dosis-respuesta encontradas, todo ello soporta dicha hipótesis como heurístico a utilizar en futuras investigaciones⁶⁴. En general, los resultados obtenidos fueron consistentes con el establecimiento de diferentes formas de manifestación del burnout, a través de historias clínicas distintivas. Por ello, refuerzan

la necesidad de que dichas historias sean reconocidas en el diagnóstico, si queremos alcanzar una más ajustada identificación, así como tratamientos más específicos.

Capítulo 5 [Chapter 5]

El capítulo quinto, titulado 'Towards a brief definition of burnout by subtypes', se corresponde con el artículo original 'Towards a brief definition of burnout syndrome by subtypes: development of the Burnout Clinical Subtypes Questionnaire (BCSQ-12)', publicado en la revista *Health and Quality of Life Outcomes*⁶⁵.

El burnout, ha sido tradicionalmente descrito mediante las dimensiones: agotamiento, cinismo e ineficacia, pertenecientes al cuestionario clásico MBI¹⁰. Por otra parte, el cuestionario BCSQ-36⁴² ofrece una nueva visión del síndrome al considerar diferentes subtipos clínicos. Los factores: sobrecarga, falta de desarrollo y abandono, característicos de los subtipos: frenético, sin-desafíos y desgastado, respectivamente, son las propiedades del enfoque tipológico con mayor validez discriminante a la hora de diferenciar los subtipos, y con mayor validez convergente respecto a las dimensiones del estándar clásico⁴². Tratando de aproximar ambas perspectivas, la clásica y la tipológica, hemos propuesto el 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-12), constituido por las dimensiones anteriormente referidas, como una definición operativa abreviada de los distintos subtipos. Mediante este estudio, hemos intentado evaluar la validez del BCSQ-12, con la hipótesis de que dicho cuestionario permite identificar los subtipos, de manera breve y con adecuadas validez factorial y validez de criterio. También fueron valoradas posibles diferencias en función del género y de la ocupación.

Para ello, se utilizó un enfoque cuantitativo mediante un diseño transversal, sobre una nueva muestra multiocupacional de trabajadores de universidad, seleccionados aleatoriamente y reclutados con una encuesta on-line ($n_T = 826$). Fue llevado a cabo un AFE sobre los ítems del BCSQ-12, utilizando la mitad de la muestra ($n_1 = 413$), por el método de máxima verosimilitud (ML) con rotación ortogonal varimax. También se realizó un análisis factorial confirmatorio (AFC), sobre la otra mitad de la muestra ($n_2 = 413$), mediante modelado de ecuaciones estructurales por el método de ML. Se adoptó tanto una perspectiva analítica (valorando las saturaciones factoriales, el porcentaje de varianza explicada sobre las variables y el grado de asociación entre los factores), como una perspectiva global (mediante índices de ajuste absoluto e incremental)^{66,67}. Previamente, fueron verificados los supuestos necesarios para llevar a cabo todos los análisis con legitimidad^{47,68}. Para evaluar la validez de criterio, se utilizó un análisis ROC sobre la muestra total, tomando el área bajo la curva como una representación

de la capacidad discriminativa de las dimensiones: sobrecarga, falta de desarrollo y abandono (BCSQ-12), a la hora de diferenciar la presencia de agotamiento, cinismo e ineficacia (MBI)⁵¹. El estatus 'caso'/'no-caso' en las dimensiones criterio, fue establecido a partir del percentil 75 del baremo general español^{51,63}. Como puntos de corte, fueron propuestos aquellos valores de las condiciones evaluadas, que optimizaron la relación sensibilidad-especificidad a la hora de predecir el estatus criterio, marcando así la diferencia entre los sujetos 'expuestos' y los 'no-expuestos', a dichas condiciones. Para estimar el tamaño del efecto, se hizo uso de modelos de regresión logística binaria multivariante, utilizando los puntos de corte señalados, y mediante el cálculo de odds ratio (OR) ajustadas, en función de características sociodemográficas y laborales⁵⁸. Fueron llevados a cabo contrastes según el sexo y la ocupación, mediante la U de Mann-Whitney y el test de Kruskal-Wallis.

Los resultados de los análisis factoriales, apoyaron la estructura del BCSQ-12, con unos índices de ajuste adecuados. El área bajo la curva ROC, presentó un gran poder predictivo para la sobrecarga sobre el agotamiento, para la falta de desarrollo respecto al cinismo y para el abandono sobre la ineficacia. Es decir, la exposición a sobrecarga, aumentó la probabilidad de sufrir altas puntuaciones en agotamiento; la exposición a falta de desarrollo, la de padecerlas en cinismo; y la exposición al abandono, la de presentarlas en ineficacia. No fueron encontradas diferencias entre los subtipos, en función del sexo, aunque sí lo fueron según la ocupación laboral. El personal de administración y servicios, presentó menores niveles de agotamiento, pero mayores en falta de desarrollo. Por su parte, los becarios, presentaron puntuaciones más bajas en abandono. El estándar MBI sólo detectó diferencias en agotamiento, siendo mayor entre el personal docente e investigador, comparado con el personal de administración y servicios.

Estos resultados, soportaron la estructura y consistencia de la definición operativa propuesta en el BCSQ-12. Su capacidad discriminativa, también resultó buena, a pesar de utilizar un criterio establecido a nivel psicométrico, dada la ausencia en la escena contemporánea de criterios clínicos consensuados^{69,70}. La obtención de resultados convergentes entre los análisis exploratorio y confirmatorio, llevados a cabo sobre las diferentes sub-muestras, aumentó la confianza sobre nuestras conclusiones. Teniendo en cuenta las inconsistencias del estándar clásico⁷¹, el BCSQ-12 tal vez pueda proveer una definición más útil y más sólida desde un punto de vista estructural, sobretodo a la hora de discriminar diferencias entre distintos grupos ocupacionales. Esto es muy importante, si queremos diseñar estrategias más específicas, con objeto de mejorar el balance costo-efectividad de nuestras intervenciones.

Capítulo 6 [Chapter 6]

El capítulo sexto, titulado 'Explanatory power of two models of burnout types', se corresponde con el artículo original 'Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types', publicado en la revista *BMC Public Health*⁷².

El énfasis que el modelo estándar del burnout ha puesto sobre los aspectos sintomáticos individuales del síndrome, no ha facilitado precisamente el desarrollo de programas de intervención enfocados sobre el individuo, la tarea y la organización, de forma simultánea⁷³. Para alcanzar un entendimiento comprehensivo del síndrome, es necesario tener en cuenta el origen de la insatisfacción experimentada⁷⁴. En este sentido, una caracterización del burnout como la proporcionada por la perspectiva tipológica³⁰, abre la posibilidad de identificar las fuentes de malestar que favorecen el desarrollo diferencial del trastorno. Tal y como ya hemos visto, este modelo cuenta con dos definiciones operativas, una extensa y otra breve. La definición extensa, contempla todas las propiedades de los subtipos: frenético, sin-desafíos y desgastado⁴². La definición abreviada, está constituida exclusivamente por las dimensiones: sobrecarga, falta de desarrollo y abandono; las cuales presentan una gran convergencia respecto al estándar clásico, así como una buena capacidad discriminativa a la hora de diferenciar los perfiles⁶⁵. Con este estudio, hemos tratado de estimar y comparar el poder explicativo de ambos modelos respecto a la definición estándar, con la intención de dilucidar su posible utilidad diferencial, teniendo en cuenta la contribución individual de sus dimensiones constituyentes. Todo ello, con la hipótesis de que la capacidad explicativa de ambas definiciones, resulta distinta.

Se hizo uso de un enfoque cuantitativo, mediante un diseño transversal, sobre la muestra de trabajadores referida en el capítulo cuarto (n = 409). Fueron tomadas medidas del burnout con el estándar MBI⁵¹, así como con el BCSQ-36⁴² y el BCSQ-12⁶⁵. Se estimó la capacidad explicativa de ambas definiciones tipológicas, sobre las dimensiones estándar, mediante el cálculo de modelos de regresión lineal multivariante. Fueron calculados coeficientes de correlación múltiple, para establecer el grado de asociación conjunta entre las variables⁷⁵. Se comparó la capacidad explicativa de ambos modelos tipológicos, con la prueba F asociada al incremento del coeficiente de determinación, al pasar del modelo abreviado al extenso⁷⁶. También se evaluó el ajuste de los modelos, revisando los errores estándar y mediante ANOVA. Fueron calculadas asociaciones crudas entre las variables, con el coeficiente de correlación r de Pearson. La contribución individual de cada variable independiente, fue estimada mediante los coeficientes

estandarizados de las pendientes de la recta. Para estimar el grado de asociación entre dos variables, eliminando el efecto de las restantes, fueron calculados coeficientes de correlación parcial. Para conocer el incremento de los coeficientes de determinación, debido a la contribución de cada variable, fueron calculados coeficientes de correlación semi-parcial. Se juzgaron las aportaciones de cada factor, mediante el test de Wald. Para llevar adelante el análisis, se revisó el cumplimiento de los supuestos respecto a la distribución de los datos.

Ambos modelos tipológicos, explicaron un elevado porcentaje de la varianza correspondiente a las variables estándar, y lo hicieron con un ajuste adecuado. Tal y como era de esperar, la capacidad explicativa del modelo extenso fue superior a la mostrada por el modelo abreviado. Las variables: sobrecarga y falta de control, contribuyeron en buena medida en la explicación del agotamiento; las variables: indiferencia y falta de desarrollo, en la explicación del cinismo; y las variables: abandono y falta de ambición, en la explicación de la ineficacia. Falta de control e indiferencia, participaron en la explicación de todas las dimensiones estándar, por lo que ambas dimensiones, podrían resultar determinantes en el desarrollo del burnout, en general. Esto puede ser explicado desde el modelo demandas-control, de forma directa en el primer caso⁷⁷, y por medio de una interpretación no lineal, basada en la creación de sentimientos de frustración, en el segundo⁷⁸. Todas las variables del BCSQ-12, contribuyeron en la explicación del agotamiento y del cinismo, pero sólo abandono, explicó la ineficacia. En general, el BCSQ-12 resultó menos redundante que el BCSQ-36, en su aporte informativo.

La ausencia de medidas test-retest, impidió valorar este aspecto de la fiabilidad de los modelos. Sin embargo, la utilización de una muestra de trabajadores con alto riesgo de desarrollar el burnout, en ocupaciones muy diversas, pero con un perfil de servicios interpersonales continuados, expandió la posibilidad de generalizar los resultados obtenidos. El BCSQ-36, podría resultar muy útil en las consultas especializadas de salud mental, al proporcionar gran cantidad de información relativa a las particularidades del síndrome, mientras que el BCSQ-12, podría ser utilizado como una medida de cribado en los servicios de atención primaria, dada su mayor simplicidad.

Capítulo 7 [Chapter 7]

El capítulo séptimo, titulado 'A short definition of burnout types for students', se corresponde con el artículo original 'Burnout syndrome among dental students: a short version of the Burnout Clinical Subtype Questionnaire adapted for students (BCSQ-12-SS)', publicado en la revista *BMC Medical Education*⁷⁹.

El burnout, ha sido observado en todo tipo de ocupaciones, aunque tiende a ser más prevalente en profesiones asistenciales o de servicios. También se han descrito elevados niveles de estrés y burnout en estudiantes universitarios⁴⁶, sobre todo en carreras del ámbito de la salud, como: medicina, enfermería y especialmente odontología⁸⁰⁻⁸², tal vez debido a la naturaleza de su trabajo clínico⁸³. De hecho, incluso se ha advertido que los planes de estudios de odontología, deberían incorporar en sus programas, la enseñanza de estrategias para manejar estrés⁸⁴. La propuesta del burnout operativizada en el BCSQ-12, a través de las dimensiones: sobrecarga, falta de desarrollo personal y abandono⁶⁵, podría resultar muy útil para el reconocimiento temprano del tipo de burnout experimentado, entre los futuros profesionales, favoreciendo el establecimiento de líneas tempranas de intervención⁷². Partiendo del BCSQ-12, hemos desarrollado una definición del burnout para ser aplicada en el ámbito estudiantil, con la hipótesis de que los subtipos de burnout pueden ser identificados de forma breve entre los estudiantes universitarios, mediante una definición operativa, que presente adecuadas características psicométricas. También, hemos intentado descubrir potenciales factores de riesgo asociados al desarrollo de los diferentes subtipos de burnout, en dicha población.

Para ello, se hizo uso de un enfoque cuantitativo mediante un diseño transversal, sobre una muestra de estudiantes de odontología de las universidades de Zaragoza y Santiago de Compostela (n = 314). Fueron adaptados los ítems del BCSQ-12, cambiando las alusiones al trabajo por referencias a la actividad estudiantil, por lo que se generó un nuevo instrumento, el BCSQ-12-SS. Mediante un AFE de dichos ítems, haciendo uso de un análisis de componentes principales con rotación ortogonal varimax, se evaluó la estructura de su definición. Previamente, fueron evaluados los supuestos necesarios para llevar a cabo este tipo de análisis⁴⁷. Se decidió el número de componentes, mediante el criterio de Kaiser y el gráfico de sedimentación^{48,49}. Se determinó la pertenencia de cada ítem sobre un factor específico, a partir de su peso factorial, mayor de 0.5⁵⁰. Se estimaron las relaciones con el estándar MBI, en su versión para estudiantes⁸⁵, mediante los coeficientes: r de Pearson, correlación múltiple y determinación. Fueron llevados a cabo análisis de consistencia interna, con el alpha de Cronbach y con los coeficientes ítem-resto. Haciendo uso de modelos de regresión logística binaria multivariante, fueron calculadas odds ratio ajustadas, para identificar posibles factores sociodemográficos y ocupacionales de riesgo, asociados al desarrollo de los diferentes perfiles. Se consideró que los participantes situados por encima del percentil 75, en cada una de las dimensiones del BCSQ-12-SS, presentaban 'altas puntuaciones', mientras que aquellos situados debajo, presentaban por el contrario 'bajas puntuaciones'⁵⁷. Se estimó la significatividad de las asociaciones, por medio del test de Wald, y el ajuste de los modelos, mediante el test de Hosmer-Lemeshow.

Los resultados del AFE y del análisis de consistencia interna, apoyaron la propuesta teórica del BCSQ-12-SS, con una distribución de los datos que permitió su adecuada interpretación. Dicho cuestionario, fue capaz de capturar una buena parte de la información contenida en el estándar de burnout utilizado. Las relaciones entre las dimensiones sobrecarga-agotamiento, falta de desarrollocinismo y abandono-ineficacia, fueron razonablemente elevadas, mientras que las encontradas entre sobrecarga, falta de desarrollo y abandono, entre sí, resultaron de menor magnitud. Se halló que, a mayor número de horas dedicadas al estudio, mayor era la probabilidad de presentar sobrecarga. El campus de Santiago, se vio asociado a la falta de desarrollo. A mayor número de asignaturas suspensas en el semestre anterior, mayor fue la probabilidad de presentar abandono. En general, el ajuste de los modelos, resultó aceptable en todos los casos.

Estos hallazgos, refuerzan la idea de una caracterización del burnout a través de subtipos clínicos, tal y como ha sido referido arriba desde una perspectiva ocupacional diferente^{42,65}. El BCSQ-12-SS, representa un avance a la hora de valorar el burnout en estudiantes, al permitir su reconocimiento, en función de la idiosincrasia particular de cada caso. Este estudio, obtuvo un alto nivel de participación, lo cual se vio reflejado en unas tasas de respuesta elevadas. Pero el tipo de diseño utilizado, resultó poco útil para contrastar hipótesis de naturaleza etiológica. Con todo, fue posible identificar factores de riesgo específicos para cada uno de los subtipos, lo cual permitió el planteamiento de supuestos causales, a contrastar en futuras investigaciones⁶⁴, facilitando así el diseño de intervenciones preventivas, desde la propia etapa formativa de los futuros profesionales⁸⁴.

Capítulo 8 [Chapter 8]

En el capítulo octavo, 'Discusión general', hemos examinado todo el trabajo de investigación realizado, revisando sus principales aportaciones, en el contexto general del tema objeto de estudio. También hemos advertido sus limitaciones, y hemos revelado la posible apertura de futuras líneas de investigación.

Estrés y burnout son considerados ya epidemias en las sociedades modernas, y su repercusión sobre la salud, el bienestar y la capacidad de trabajo de los empleados, es ampliamente reconocida en todo el mundo. Con la presente tesis doctoral, hemos tratado de reconocer diferentes formas de manifestación del burnout, proponiendo una nueva definición del síndrome, mediante la caracterización de subtipos clínicos. Con ello, hemos perseguido alcanzar un entendimiento más completo del trastorno, fomentando a la larga el desarrollo de intervenciones más ajustadas a las características de cada caso, con objeto de mejorar su efectividad.

La definición tipológica preliminar del burnout, a partir de los perfiles clínicos originalmente presentados por Farber^{22,23,31-35}, aunque intuitiva, adolece de falta de integración conceptual, por lo que no constituye una verdadera tipología. Hemos visto que el subtipo de burnout denominado frenético, se caracteriza por una gran implicación, ambición y sobrecarga. Su malestar tiene origen en la imposibilidad de satisfacer las necesidades personales, debido a un nivel de demandas excesivamente elevado, lo cual constituye para él una gran fuente de estrés^{86,87}. El perfil sin-desafíos, presenta indiferencia, aburrimiento y falta de desarrollo personal en el puesto. Su dificultad proviene de la ausencia de significado en las tareas que ha de desempeñar, algo que suele acompañar al desarrollo del síndrome en general⁸⁶⁻⁸⁹. El subtipo desgastado, experimenta abandono, ausencia de control y falta de reconocimiento. Se encuentra dominado por la apatía y la desesperanza, por lo que su rendimiento se ve seriamente afectado^{56,90-92}. También hemos visto que los subtipos de burnout, pueden ser ordenados en función de su nivel de dedicación hacia las tareas del trabajo, lo cual viene a sistematizar la tipología, mediante un nuevo criterio de clasificación.

El 'Cuestionario de Subtipos Clínicos de burnout' (BCSQ-36), ha sido propuesto como una definición operativa extensa, capaz de identificar los distintos subtipos de burnout. Gracias a este cuestionario, hemos podido observar que el subtipo frenético, esta formado por empleados altamente comprometidos, que se ven consumidos por el agotamiento de sus propios recursos energéticos^{24,52,93}. Por otra parte, el subtipo sin-desafíos, ha perdido el interés por su empleo, y termina 'quemado' por la insatisfacción y la ausencia de variedad en las tareas que ha de desempeñar^{53,89,94,95}. Finalmente, el subtipo desgastado, se encuentra en una posición de desesperación opuesta al compromiso^{56,92}, como consecuencia de la ausencia de control y de reconocimientos^{55,96,97}. Hemos visto que el perfil frenético, está más presente entre los trabajadores temporales, mientras que los perfiles sin-desafíos y desgastado, se encuentran mayoritariamente entre los indefinidos, tal vez como resultado de su diferente nivel de dedicación.

También fueron encontradas asociaciones entre los subtipos de burnout y otras variables sociodemográficas y ocupacionales generales. Por ejemplo, hemos observado que a mayor cantidad de horas semanales de trabajo, mayor parece ser la probabilidad de presentar el subtipo frenético, tal vez debido a la adopción de un patrón de afrontamiento activo, que lleva consigo la inversión de una gran cantidad de esfuerzos³⁰. Por otro lado, el personal de administración y servicios, obtuvo un riesgo mayor de presentar el subtipo sin-desafíos, comparado con el personal docente e investigador, tal vez como consecuencia del carácter mecánico y rutinario de las tareas que ha de desempeñar^{53,88}. Por último, aquellos

empleados con más antigüedad en la organización, presentaron un riesgo mayor de padecer el subtipo desgastado, probablemente como consecuencia del impacto negativo que la estructura organizativa puede ejercer sobre el desempeño⁹⁸⁻¹⁰⁰.

El 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-12), constituido por las dimensiones sobrecarga, falta de desarrollo personal y abandono, pertenecientes a los subtipos frenético, sin-desafíos y desgastado, respectivamente, permitió aproximar las definiciones clásica y tipológica del síndrome, ya que presentó una gran convergencia con el estándar al tiempo que una gran capacidad para diferenciar los perfiles⁴², y todo ello con unas características psicométricas excelentes^{44,45}. Además, dicho cuestionario, fue capaz de ir más allá que el estándar MBI, a la hora de establecer diferencias entre los distintos estratos ocupacionales. La sobrecarga, importante factor etiológico del burnout¹⁰¹⁻¹⁰³, se encontró en mayor medida entre el personal docente e investigador. La falta de desarrollo, impuesta en gran parte por las características de la tarea^{53,89,95}, estuvo más presente entre el personal de administración y servicios. El abandono, como resultado de las experiencias negativas acumuladas en el contexto organizativo^{57,104,105}, apareció en menor medida entre los becarios.

Las definiciones incorporadas en el BCSQ-36 y BCSQ-12, presentaron una extensión conceptual diferente. Ambos modelos, fueron capaces de capturar una gran proporción de la información contenida en la perspectiva clásica del burnout, pero la capacidad explicativa del BCSQ-36, resultó mayor que la ofrecida por el BCSQ-12. Las dimensiones falta de control e indiferencia, contempladas en la versión extensa, participaron de forma significativa en la explicación de todas las dimensiones criterio, por lo que podrían resultar determinantes en el desarrollo del síndrome. Sobrecarga y falta de control, fueron los factores que más contribuyeron en la explicación del criterio agotamiento, conforme a lo expresado en el modelo demandas-control y demandas-recursos^{77,103}. Indiferencia y falta de desarrollo, explicaron en buena medida el criterio cinismo, tal vez como resultado del tedio originado por un nivel de demandas insuficiente⁷⁸. Abandono y falta de ambición, fueron las propiedades que mejor explicaron el criterio ineficacia, lo cual puede ser explicado desde la teoría de la cognición social de Bandura^{104,106,107}.

Debido a la gran utilidad que presenta el BCSQ-12, fue propuesta una adaptación de dicho cuestionario, para ser aplicada en estudiantes: el BCSQ-12-SS. Su estructura factorial, replicó la propuesta teórica original, formada por los componentes: sobrecarga, falta de desarrollo personal y abandono. La sobrecarga, se vio fuertemente asociada al criterio agotamiento, así como al número de horas semanales de estudio, de modo que a mayor cantidad de horas, mayor fue la probabilidad de presentar sobrecarga, en consonancia con lo encontrado en el

subtipo frenético con muestras de trabajadores⁵⁷. La falta de desarrollo personal, se vio asociada al criterio cinismo y al campus de procedencia, de manera que los estudiantes de la universidad de mayor tamaño, obtuvieron una probabilidad más elevada de mostrar falta de desarrollo, tal vez como consecuencia del peso concedido a los aspectos más formales de la enseñanza, tal y como ha podido ser observado en el tipo de tareas que suelen desempeñar los trabajadores afectados por el perfil sin-desafíos⁵⁷. El abandono, se relacionó con el criterio ineficacia, y con el número de asignaturas suspendidas en el semestre anterior, de modo que a mayor cantidad de asignaturas suspensas, mayor fue la probabilidad de desarrollar abandono, en congruencia con la percepción de falta de control y de reconocimiento observada en los trabajadores que sufren el perfil desgastado⁵⁷.

El marco teórico inicial, no estuvo libre de excepciones, puesto que alguno de los casos analizados mostró una configuración de propiedades, que no se ajustó exactamente al modelo propuesto. Además, la naturaleza transversal del diseño utilizado, no permitió establecer conclusiones sobre la etiología de los subtipos, o sobre su posible desarrollo longitudinal, lo cual tal vez podría haber ayudado a explicar las inconsistencias mencionadas. En general, la tasa de respuesta obtenida fue relativamente baja, aunque el tamaño muestral resultante no afectó a la potencia estadística, por encontrarse dentro de lo previsto. Se ha de reconocer que las diferencias encontradas en las tasas de respuesta, en función del estrato ocupacional, pudieron restar representatividad a la muestra de sujetos participantes. Dicha muestra, estuvo exclusivamente compuesta por trabajadores y estudiantes del ámbito universitario, lo cual podría restringir las posibilidades de generalización de nuestros resultados. Por otra parte, la validación del modelo fue desarrollada en términos exclusivamente psicométricos, sin referente clínico que permitiese demostrar la validez de pronóstico. Tampoco fueron tomadas medidas test-retest sobre las variables, por lo que no fue posible cuantificar este aspecto de la fiabilidad. Por último, las variables objeto de análisis fueron auto-reportadas, así que las respuestas pudieron verse influidas por el efecto de la deseabilidad social.

En general, los resultados del presente trabajo de investigación abren la posibilidad de desarrollar nuevas intervenciones, preventivas o de tratamiento, ajustadas a las características de los subtipos de burnout identificados. También sugieren la necesidad de llevar adelante el contraste de la hipótesis que asume el posible avance del síndrome de unos perfiles a otros, en orden decreciente de dedicación hacia las tareas, así como la comprobación del papel que la variable mediadora culpa podría tener en la evolución de cada uno de los subtipos. Tratar de descubrir relaciones diferenciales entre los subtipos y algunos biomarcadores del síndrome, podría ayudar a comprender los aspectos psicósomáticos del burnout,

relativos al funcionamiento del eje hipotálamo-pituitario-adrenal y del sistema inmune. Por último, la exploración de los correlatos positivos de los componentes del modelo tipológico propuesto, tal vez permita una comprensión plena de los subtipos, abriendo paso al reconocimiento y potenciación de sus cualidades opuestas, aquellas relativas a un compromiso equilibrado en el puesto de trabajo.

Conclusiones [Conclusions]

En el apartado 'Conclusiones', se presentan los corolarios de la tesis respecto a los objetivos inicialmente propuestos, y como deducción de los resultados obtenidos. Respecto a la propuesta teórica del burnout, hemos dicho que el subtipo frenético, presentó las características implicación, ambición y sobrecarga; el subtipo sin-desafíos, mostró indiferencia, aburrimiento y falta de desarrollo; y el subtipo desgastado, se caracterizó por el abandono, la falta de control y de reconocimiento. También hemos dicho, que el nivel de dedicación hacia las tareas, permitió articular dicha estructura conceptual, a modo de criterio de clasificación. Las definiciones operativas extensa (BCSQ-36) y breve (BCSQ-12/BCSQ-12-SS), desarrolladas para poder identificar los subtipos de burnout referidos, permitieron hacerlo con adecuadas propiedades psicométricas. El poder explicativo de todos los modelos resultó elevado, siendo mayor en la definición extensa. Los empleados temporales, mostraron puntuaciones más elevadas en el perfil frenético, y los indefinidos en los perfiles sin-desafíos y desgastado. El PDI, mostró mayores niveles de sobrecarga, el PAS, mayores niveles de falta de desarrollo, y los becarios, menores niveles de abandono. El subtipo frenético, se asoció al número de horas semanales de trabajo; el subtipo sin-desafíos, a ocupaciones de tipo burocrático, como las del personal de administración y servicios; el subtipo desgastado, al tiempo de servicio trabajado en la organización. En estudiantes, la sobrecarga se relacionó con el número de horas semanales dedicadas al estudio; la falta de desarrollo con el campus universitario de procedencia; y el abandono con el número de asignaturas suspensas en el semestre anterior.

Apéndices [Appendices]

Como apéndices, hemos incluido los cuestionarios desarrollados para llevar a cabo la evaluación de los subtipos de burnout, propuestos en el presente trabajo de investigación (BCSQ-36, BCSQ-12, BCSQ-12-SS), en sus versiones española e inglesa, las características bibliométricas de las revistas en las cuales se encuentran publicados los artículos que constituyen el grueso de la tesis, así como las contribuciones fundamentales del autor de la presente disertación.

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Capítulo 1

Introducción [Introduction]

“La absoluta falta de entusiasmo por algo que de verdad le apasionase, el empobrecimiento y la desolación que reinaban en su interior –una desolación tan profunda que se traslucía en un estado de pesar casi permanente y tan indeterminado como angustioso–, unidos a un implacable sentido del deber y a la firme determinación de seguir mostrando la máxima dignidad a cualquier precio, de disimular su debilidad por todos los medios y guardar las apariencias, habían transformado su existencia en eso: en algo artificial, conscientemente forzado, por lo que cualquier palabra, cualquier movimiento, cualquier acción que implicase el más mínimo contacto con otras personas, se convertía en una agotadora e irritante actuación teatral”.

(Thomas Mann, Los Buddenbrook, 1901)

Antecedentes [Background]

Los cambios que en los últimos tiempos y a nivel global, han experimentado los lugares de trabajo, como consecuencia de las características del paradigma económico dominante, suponen un reto enorme a la capacidad de adaptación de las personas trabajadoras¹. La racionalización y control de los procesos de producción y servicios, mediante la aplicación de sistemas tecnológicos y burocráticos, ha provocado importantes transformaciones en la estructura de las sociedades modernas. Nuevas demandas laborales, el creciente volumen de trabajo, la reducción en el nivel de los recursos económicos o materiales destinados, y el control tecnocrático de la producción, han contribuido al aumento de la vulnerabilidad de las personas ocupadas frente al estrés, y por extensión, al riesgo de padecer el denominado síndrome de burnout^{2,3}.

Un estudio reciente de la Comisión Europea, concluye que alrededor de un 30% de los empleados de los estados miembros, podría presentar altos niveles de estrés en su puesto de trabajo. La tendencia de los últimos años señala que este porcentaje va en aumento^{4,5}. Alrededor de un 60% de las bajas laborales producidas en la Unión Europea (UE), están relacionadas con el estrés laboral y su coste económico anual en dicha unión, asciende a unos 20.000 millones de euros⁶. Estrés y burnout, son considerados ya epidemias en las sociedades modernas, con importantes implicaciones en la salud y en la capacidad de trabajo de las personas^{7,8}. Aunque depende de la profesión, del criterio utilizado para establecer el diagnóstico y de la población objeto de estudio, se ha dicho que alrededor de un 12% de los trabajadores europeos podría padecer actualmente el síndrome de burnout^{6,9}, lo cual significa que una gran cantidad de personas, podría presentar dificultades para mantener su capacidad de trabajo y su bienestar, en las actividades cotidianas^{3,10}. En general, el síndrome de burnout constituye en la actualidad un fenómeno en expansión, y por ello es considerado un riesgo psicosocial emergente en la UE.

Conceptualización [Conceptualization]

El significado más próximo y coloquial del término 'burnout', viene a ser estar quemado, desgastado, exhausto y sin ilusión por el trabajo¹¹. Mucho de lo que hoy en día sabemos sobre el síndrome de burnout, fue prefigurado ya en los escritos clásicos de grandes autores literarios como Melville¹², quien ya en el siglo XIX, exploró los límites de la compasión humana hacia un personaje consumido en su propia dedicación al trabajo¹³; o Thomas Mann, al relatar un caso aquejado por el síndrome, mucho antes de que el concepto fuese propiamente acuñado¹⁴; y

también Graham Green, que utilizó por vez primera el término burnout, para explorar los sentimientos de indiferencia y pérdida de significado que invaden al hombre moderno, como consecuencia de sus relaciones con el mundo laboral¹⁵.

Desde una perspectiva científica, el desarrollo del constructo se originó a mediados de los años 70, de la mano de Freudenberger, como un tipo de estrés vinculado a profesiones asistenciales o de servicios, caracterizado por una progresiva falta de energía o de entusiasmo¹⁶. Ya en los años 80, Cherniss utilizó este mismo término, para describir una situación de desconexión general o de falta de ajuste, entre los empleados y su lugar de trabajo¹⁷. Más tarde, Maslach y Jackson, presentaron una definición operativa del burnout, el 'Maslach Burnout Inventory' (MBI), que llegaría a ser considerada gold estándar durante mucho tiempo¹⁸. Esta definición, puso en el punto de mira las respuestas emocionales de los trabajadores afectados, destacando la presencia de síntomas de cansancio emocional, despersonalización y falta de realización personal. El cansancio emocional, se refiere a una pérdida progresiva de la capacidad de entrega en el trabajo, y representa una dimensión individual del burnout. La despersonalización, lleva consigo cierto distanciamiento emocional hacia los destinatarios del servicio, mediante la adopción de conductas impersonales o endurecidas, y hace referencia al contexto interpersonal del trabajador. La falta de realización personal, estaría presente en trabajadores profesionalmente descontentos, desmotivados e insatisfechos, como resultado de una auto-evaluación negativa de sus propios logros o satisfacciones, en la esfera organizativa y laboral¹⁹. Planteada originalmente para dar cobertura a profesiones asistenciales o de servicios, esta definición ha sido reconceptualizada para mejorar su validez factorial, y también para conseguir su aplicabilidad en todo tipo de ocupaciones²⁰, lo cual ha sido posible mediante las nuevas dimensiones: agotamiento, cinismo e ineficacia, que constituyen el 'Maslach Burnout Inventory General Survey' (MBI-GS)^{21,22}. El agotamiento, sería la sensación de no poder dar más de sí a nivel emocional, como consecuencia de una exposición prolongada a las exigencias laborales. El cinismo, se refiere a la falta de interés y a la pérdida de significado, así como a la indiferencia y al distanciamiento hacia el trabajo. La ineficacia, sería la percepción de no hacer adecuadamente las tareas y la sensación de ser incompetente en el puesto asignado.

Otras definiciones del burnout, se han enfocado más en el agotamiento, como elemento central del trastorno. Por ejemplo, Pines y Aronson, se han referido al burnout, como: "un estado de agotamiento emocional, físico y mental, compuesto por sensaciones de angustia, desesperanza, fatiga y abatimiento, resultado de la participación a largo plazo en situaciones emocionalmente exigentes"²³. Por su parte, Shirom, lo contempla como: "un estado afectivo negativo, caracterizado

por la presencia de fatiga física y cansancio cognitivo²⁴. Para Halbesleben y Demerouti, sería: "un estado de agotamiento y falta de compromiso, resultado de una intensa carga física, afectiva y cognitiva, así como de un distanciamiento debido a la ausencia de interés por el trabajo, de identificación con las tareas y de desafíos a nivel personal"²⁵. Se ha señalado que el proceso que conduce a este estado, atraviesa varias etapas de desilusión progresiva, desde el idealismo y el entusiasmo, donde el individuo posee altos niveles de energía pero expectativas poco realistas, pasando por el estancamiento o la frustración, hasta desembocar finalmente en la desmotivación y el abandono de las responsabilidades²⁶.

Bajo el influjo de la psicología positiva, se ha propuesto el constructo 'compromiso' (*engagement*), como un estado de bienestar, en el cual los trabajadores presentarían grandes cantidades de energía, gran participación en las tareas, y un elevado sentido de la capacidad para hacer frente a las exigencias del puesto, todo lo cual vendría a constituir algo así como el polo opuesto del burnout^{22,27}. Este estado, ha sido definido por medio de las dimensiones: vigor, dedicación y absorción²⁸. El vigor, incluye elevados niveles de energía y de resiliencia en el trabajo, además de cierta persistencia ante las dificultades, así como la voluntad personal de invertir los esfuerzos necesarios para superarlas. La dedicación, está formada por el entusiasmo, inspiración, identificación, orgullo y desafío, además de cierto sentido de la importancia del trabajo realizado. La absorción, supone estar plenamente concentrado y absorto en el trabajo, experimentando la sensación de que el tiempo pasa rápidamente. En términos generales, el compromiso se asocia a un desempeño adecuado y a elevados niveles de rendimiento, aunque podría no compartir exactamente los mismos factores que componen el burnout. Mientras que sí parece ocupar una dimensión relativa a la identificación con el trabajo, cuyos polos opuestos serían el cinismo, por un lado, y la dedicación, por el otro, no parece hacerlo respecto al aspecto energético, representado teóricamente por el agotamiento, de una parte, y por el vigor, de la otra. No obstante, ambas dimensiones estarían íntimamente relacionadas. En resumen, el término compromiso, haría referencia a un estado motivacional persistente de cumplimiento de las obligaciones, llevado a cabo con un tono emocional positivo. Sus principales antecedentes serían: el optimismo, la autoeficacia y la autoestima, a nivel personal; y la autonomía, el feedback y la supervisión adecuados, a nivel del puesto y de la organización del trabajo²⁹.

Teorías y modelos [Theories and models]

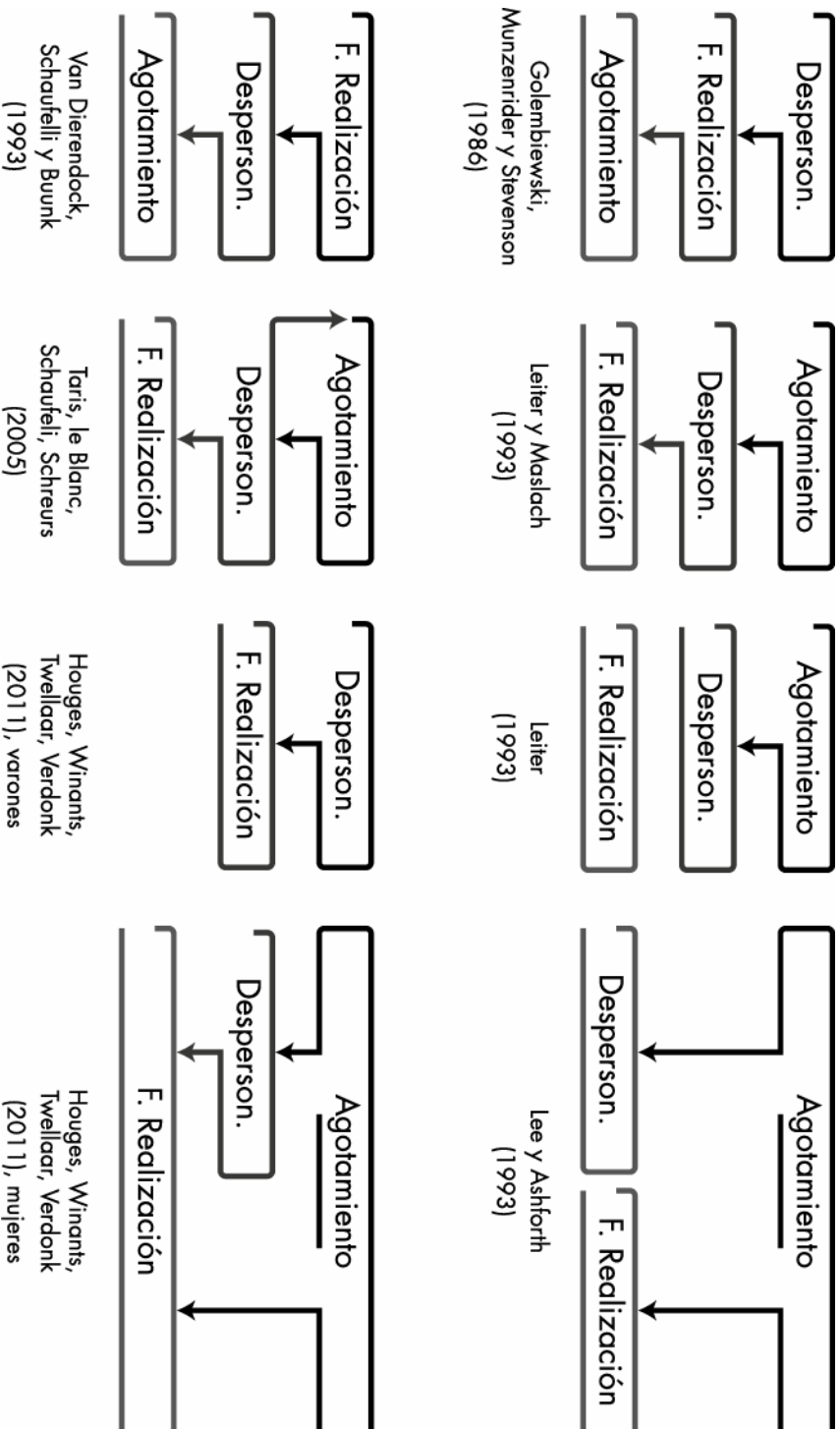
El burnout, ha sido tradicionalmente entendido como un proceso de acomodación psicológica, ante situaciones de estrés laboral crónico²². Esta visión,

ha permitido abordar teóricamente el síndrome, a partir de los modelos generales que tratan de explicar el estrés³⁰. Por ejemplo, el modelo del ajuste persona-entorno³¹, describe los desequilibrios entre las demandas y las oportunidades que exige y ofrece el entorno laboral, respecto a las habilidades y expectativas que poseen los empleados, como un importante antecedente del estrés y del posterior deterioro de la salud de los trabajadores. El modelo transaccional del estrés³², incorpora la interacción entre las características del puesto y las del empleado, contemplando la valoración que el individuo hace de la situación, y de sus propias posibilidades de manejo. Este modelo, concede una gran importancia al proceso de afrontamiento, y se centra en los esfuerzos puestos en marcha para gestionar las demandas percibidas como excedentes, respecto a los propios recursos³³. Se ha dicho que las estrategias pro-activas, centradas en la solución de los problemas, son fundamentales para la adaptación del individuo. Por el contrario, el burnout, sería el resultado de utilizar estrategias de afrontamiento poco eficaces³⁰. Dos aspectos esenciales, a la hora de explicar los procesos de adaptación y de cambio, son: el apoyo social³⁴ y la percepción de auto-eficacia³⁵. Ambos factores, han recibido un gran apoyo empírico, en cuanto a sus efectos positivos sobre la salud.

Algunos autores, han tratado de explicar el desarrollo del burnout de manera secuencial, a partir de las dimensiones estándar del MBI¹⁹, aunque lo cierto es que, éstas dimensiones, no fueron ideadas originalmente para capturar tal proceso. Dicha perspectiva, asume que las posibles relaciones entre el cansancio emocional, la despersonalización y la falta de realización personal, o entre el agotamiento, el cinismo y la ineficacia, podrían ser el resultado de un proceso causal, que reflejaría el avance del síndrome. Conocer los detalles de este proceso, podría facilitar el reconocimiento temprano del personal trabajador con alto riesgo, susceptible de ser intervenido precozmente^{30,36}. En la Figura 1, hemos presentado de manera esquemática los modelos que han utilizado las dimensiones estándar del burnout, para explicar el posible desarrollo o evolución longitudinal del síndrome.

La emergencia de actitudes despersonalizadas, como desapego ante las situaciones estresantes, sería para Golembiewski³⁷, el primer síntoma que daría inicio al desarrollo del síndrome. A ello, le seguiría la aparición de sentimientos de falta de realización personal, como consecuencia de la disminución del rendimiento que llevaría consigo la despersonalización. Finalmente, estos sentimientos elevarían los niveles de tensión emocional, hasta terminar agotando al individuo. Con este modelo, fueron presentados también distintos perfiles a la hora de manifestar el burnout, mediante la categorización del nivel con el que se presentaba cada una de las dimensiones estándar. Esto, dio lugar a distintas combinaciones, que fueron interpretadas como diferentes fases en el desarrollo del

Figura 1: Principales modelos que han utilizado las dimensiones estándar del burnout para explicar su desarrollo



síndrome³⁸. No obstante, la utilización de este modelo diferencial, ha sido mas bien escasa, debido a su excesiva complejidad.

Leiter y Maslach³⁹, establecieron que los trabajadores podrían desarrollar sentimientos de cansancio emocional, como resultado del estrés provocado por la sobrecarga generada por demandas excesivas en el puesto. Estos sentimientos, propiciarían la aparición de actitudes despersonalizadas, haciendo perder al trabajador la implicación y el compromiso, en un intento por hacer frente a los estresores. Los sentimientos de agotamiento, serían la más obvia manifestación del síndrome, constituyendo su elemento central, y la despersonalización, podría ser un intento sin éxito de manejar la persistencia del cansancio mediante la adopción de actitudes distantes⁴⁰. Leiter, también ha propuesto en un trabajo posterior, que los síntomas de agotamiento y despersonalización, podrían originarse de manera secuencial, mientras que la despersonalización, podría no mediar la relación entre el agotamiento y la falta de realización personal. Así, los sentimientos de falta de realización personal, podrían desarrollarse de forma separada como consecuencia de un ambiente organizacional pobre, debido a la ausencia de apoyo social, y por la falta de oportunidades para el desarrollo profesional⁴¹.

Para Lee y Ashforth^{42,43}, la despersonalización y los sentimientos de falta de realización personal, serían consecuencia directa del agotamiento emocional. Van Dierendonck, Schaufeli y Buunk⁴⁴, han sugerido que la clave y origen del síndrome estaría más bien en la falta de realización personal, la cual influiría en los niveles de despersonalización, y éstos en el agotamiento. Taris, le Blanc, Schaufeli y Schreurs⁴⁵, señalan que el agotamiento se encontraría en el origen del trastorno, determinando los niveles de despersonalización, y éstos los de agotamiento y falta de realización. Como podemos ver, los puntos de vista causales de este proceso divergen enormemente, tal vez debido a los diferentes tipos de muestras utilizadas, aunque todos ellos han encontrado cierta cantidad de apoyo empírico.

Se ha sugerido que una perspectiva de género, podría explicar estas aparentes inconsistencias⁴⁶. En varones, el origen del trastorno podría estar en la despersonalización, mientras que la falta de realización, no constituiría en ellos una dimensión importante, al no verse afectada por el agotamiento o la despersonalización. En mujeres, el desencadenante del síndrome sería el agotamiento, el cual influiría sobre la despersonalización, y ambas sobre la falta de realización personal, potenciando así el desarrollo de sentimientos de culpa e inseguridad. Estas distinciones, podrían tener su origen en los procesos de socialización laboral, dando lugar a una exposición diferencial a los riesgos psicosociales, en función del género. Los varones, suelen estar más orientados hacia las metas, lo que les previene del agotamiento⁴⁷, y adoptan la despersonalización

como una estrategia de evitación frente a las situaciones estresantes, lo cual resulta ineficaz y disfuncional, y a la larga afecta a su bienestar y rendimiento⁴⁸. Las mujeres, han de enfrentarse a estereotipos y conductas discriminatorias, cargan con un gran volumen de trabajo por una división de las tareas desigual, y se implican en las relaciones interpersonales con una comunicación de mayor calidad, lo cual las hace más proclives al agotamiento^{47,49}. Por tanto, el lugar de trabajo, podría experimentarse o vivirse de manera distinta, según el género⁵⁰. Los resultados de prevalencia en función del género, suelen estar confundidos por diferencias de tipo ocupacional, lo que dificulta la comparación de valores entre diferentes estudios⁵¹. No obstante, parecen ir en la línea de lo propuesto, ya que las mujeres, suelen puntuar más alto en cansancio emocional, mientras que los hombres, lo hacen en despersonalización⁵²⁻⁵⁵.

Otros enfoques, han hecho mayor énfasis en cómo las características psicosociales del puesto, podrían llegar a afectar la salud y la motivación de los empleados. Desde el modelo de las demandas y el control⁵⁶⁻⁵⁸, se ha dicho que la percepción de altas demandas, junto con un grado de control bajo sobre ellas, podría generar niveles importantes de tensión psicológica, mientras que la percepción de bajas demandas, con un grado de control bajo, podría originar pasividad y una pérdida gradual de las habilidades adquiridas. En general, se ha apuntado que un nivel de demandas desmedido, parece provocar un gran malestar entre los empleados, mientras que un control elevado sobre las demandas, permitiría un aprendizaje activo⁵⁹. Esto último, es congruente con el modelo de las demandas y los recursos⁶⁰, desde el cual se plantea el agotamiento, como el resultado de un excesivo nivel de demandas, y la despersonalización, como consecuencia de una falta de recursos al afrontar las tareas. Desde este mismo modelo, también se ha apuntado que los recursos personales en el trabajo, podrían atenuar el efecto de las demandas excesivas en el origen y desarrollo del burnout⁶¹. Por otro lado, el modelo de los desequilibrios entre los esfuerzos y las recompensas⁶², plantea que las situaciones laborales que exigen elevados niveles de esfuerzo, y proporcionan bajas recompensas, constituyen una grave amenaza para el bienestar individual⁶³⁻⁶⁵. Éste modelo, incorpora un enfoque que puede situarse dentro del marco de influencia de las teorías del intercambio social, permitiendo así una interpretación del burnout desde una perspectiva más amplia.

La compleja idiosincrasia psico-social del síndrome, exige abordar el burnout como resultado de una práctica social, en un contexto cultural y económico determinados⁶⁶. Las teorías del intercambio social, tienen en cuenta no sólo las características del individuo o del puesto, sino también las de la propia organización del trabajo, así como las relaciones interpersonales que se establecen en el

entorno laboral^{67,68}. Este marco, contempla el burnout como consecuencia de un desequilibrio en las relaciones de intercambio, tanto a nivel interpersonal, como de equipo u organización. Según esta perspectiva, el burnout sería un problema individual, pero también del entorno, puesto que los lugares de trabajo determinan la forma mediante la cual las personas interactúan y desarrollan sus tareas. Este enfoque, incluye la teoría de la comparación social^{69,70}, la teoría de la equidad^{71,72} y la teoría de la conservación de los recursos^{73,74}. Todas ellas, se fundamentan en la idea de la necesidad de distribuir la riqueza y el poder dentro del grupo social, así como en la percepción que los individuos tienen del reparto de los recursos disponibles^{75,76}. Y es que las personas, se encuentran intrínsecamente motivadas para obtener y proteger sus recursos, por lo que si perciben desequilibrios entre las inversiones llevadas a cabo y los beneficios obtenidos a cambio, resultarán altamente motivadas para la acción, reaccionando para reestablecer el equilibrio perdido. En este sentido, el origen del burnout, se encontraría en la percepción de falta de reciprocidad, que algunos sujetos desarrollan en los procesos de comparación e intercambio social, debido al sentimiento de que los recursos que han invertido, se van a perder o no los van a poder recuperar^{77,78}.

Algunos modelos, han tratado de integrar de manera ecléctica los hallazgos anteriormente presentados. Es el caso del modelo de las áreas de la vida laboral⁷⁹, donde se propone que un ajuste entre el individuo y su puesto, en aspectos organizativos como la carga de trabajo, el control, las recompensas, los sentimientos de comunidad, la percepción de justicia y los valores, podría contribuir a la sensación de energía y a la participación en las tareas, mientras que la falta de ajuste sobre dichas áreas, propiciaría el burnout. La carga de trabajo y la falta de control, provienen del modelo de las demandas y el control^{57,58}; las recompensas, hacen referencia al poder de los reforzadores para modelar la conducta^{80,81}; la comunidad, tiene en cuenta el apoyo social y los conflictos interpersonales^{82,83}; la justicia, se fundamenta en la perspectiva de la equidad^{71,72}; y los valores, señalan el poder que tienen las expectativas⁸⁴. La falta de congruencia entre la experiencia individual y las seis áreas de la vida laboral referidas, determinaría el desarrollo del burnout, mientras que la percepción de coherencia, podría facilitar el compromiso del individuo con su trabajo⁸⁵. También se ha propuesto un modelo de desarrollo del burnout mediante dos procesos: uno basado exclusivamente en el agotamiento por sobrecarga, y otro fundamentado en el conflicto de valores entre la persona y la organización, con implicaciones sobre las tres dimensiones clásicas del burnout⁸⁶.

El burnout, ha sido tradicionalmente considerado una entidad uniforme, con una etiología y unos síntomas más o menos consistentes. No obstante, algunos

estudios han propuesto la existencia de diferentes tipos de burnout. Por ejemplo, Paine, ha diferenciado entre el burnout como un síndrome por estrés agudo, con los sentimientos y conductas comunmente encontradas en ambientes de trabajo estresantes, y el burnout como una discapacidad mental, es decir, como un patron clínico de malestar personal y disminución del rendimiento, que vendría a constituir la etapa crónica final del trastorno⁸⁷. Basándose en el modelo de Lacan de la intersubjetividad, Vanheule, Lievrouw y Verhaeghe⁸⁸, han examinado el proceso intersubjetivo conectado al síndrome de burnout, diferenciando entre quienes sostienen que otras personas son las causantes de sus problemas, lo cual provoca una progresiva escalada de conflictos en el lugar de trabajo, y entre aquellos que de forma perfeccionista tratan de satisfacer los deseos de los demás, con el sentimiento de que es responsabilidad propia tratar de dar respuesta a las necesidades de otros. También se ha dicho, que la presencia o ausencia de sentimientos de culpa, asociados al burnout, podría explicar la existencia de diferentes perfiles del síndrome⁸⁹. Incluso se han distinguido tipos de burnout, a partir de los niveles encontrados en biomarcadores como la prolactina basal⁹⁰.

Desde una perspectiva fenomenológica, Farber ha descrito el burnout a través de tres diferentes formas, a modo de subgrupos clínicos, con características diferenciales⁹¹⁻⁹⁷. El subtipo de burnout denominado 'frenético', vendría a ser una categoría de sujetos que trabajan cada vez más duro hasta el agotamiento, buscando éxitos a la altura de la tensión ocasionada por todos sus esfuerzos. El subtipo de burnout 'sin-desafíos', lo conformarían aquellos trabajadores insuficientemente retados, que han de afrontar condiciones laborales poco estimulantes, que no proporcionan la satisfacción necesaria. Finalmente, el subtipo de burnout 'desgastado', estaría formado por personas que enseguida se rinden frente al estrés o la ausencia de gratificaciones. Esta tipológica preliminar del síndrome, ha sido propuesta a partir de la observación de numerosos casos clínicos, y podría ser enmarcada bajo el influjo de las teorías del intercambio social, puesto que cada subtipo percibiría en última instancia, aunque de manera diferente, cierta falta de consistencia entre sus inversiones en el trabajo y las ganancias o reconocimientos obtenidos a cambio.

Síntomas y consecuencias [Symptoms and consequences]

La mayor parte de las teorías que tratan de aproximarse y dar explicación al síndrome de burnout, comparten algunas asunciones básicas sobre la naturaleza de este fenómeno. Es un lugar común, considerar que en el burnout predominan los síntomas de fatiga, al tiempo que ocurren, no obstante, otros síntomas atípicos simultáneamente. También se acepta que todos estos síntomas individuales están relacionados con las características del ambiente de trabajo, y

que se manifiestan en personas normales, sin ningún tipo de psicopatología mayor. Además, el burnout lleva consigo una serie de actitudes y conductas negativas, que disminuyen la eficacia y el rendimiento³⁰.

El padecimiento del síndrome de burnout, especialmente la presencia de elevados niveles de agotamiento, se ha relacionado con una peor autopercepción de la salud, y con una gran comorbilidad somática^{77,98}. Específicamente, el burnout se ha visto asociado a mareos, jaquecas, migrañas, fatiga crónica, molestias gastrointestinales, gastritis, úlceras, asma y urticarias^{11,99-102}. También, ha sido relacionado con la presencia de dolor músculo-esquelético^{103,104}, tal vez como consecuencia del hipo-cortisolismo¹⁰⁵, o por la alteración de los niveles de catecolaminas (en especial norepinefrina) y del funcionamiento del sistema endocrino, a través del eje simpático-adrenal^{3,106,107}. El burnout, se ha visto asociado también a una peor calidad del sueño y a problemas de insomnio, probablemente, por los desajustes en los niveles de hormonas del estrés mencionados^{3,108,109}. El agotamiento, se ha relacionado con más despertares nocturnos, el cinismo, con una peor calidad del sueño, y ambos en general, con menos horas de sueño. Por el contrario, el sentido de la eficacia profesional, se asocia favorablemente al sueño¹⁰⁸. Burnout e insomnio, presentan relaciones recíprocas a lo largo del tiempo, y tal vez ambos, podrían aliviarse mejorando las relaciones sociales de apoyo en el trabajo, así como mediante la adquisición de la sensación de control¹¹⁰. También, se ha dicho que el insomnio podría determinar la persistencia del agotamiento emocional, pero no a la inversa¹¹¹.

El burnout, es un importante factor de riesgo a la hora de desarrollar infecciones comunes, como las gastroenteritis, los resfriados o la gripe^{112,113}. El estrés crónico, puede además inducir depresión en el sistema inmune, a través de la disminución de los niveles de inmunoglobulina A (IgA) y de lisozima, mientras que la dimensión despersonalización del burnout, podría verse concretamente asociada a una bajada de actividad en las células naturales asesinas (NKCA), y en los anticuerpos mononucleares (CD₅₇ y CD₁₆)^{114,115}. El burnout en general, ha sido relacionado con incrementos sistémicos de factores relativos a la inflamación, en proporción directa con la intensidad del síndrome¹¹⁶. Aunque todavía no se ha demostrado, quienes padecen burnout durante largos períodos, podrían estar hipotéticamente expuestos a un mayor riesgo de cáncer, ya que la inflamación sistémica crónica está relacionada con el desarrollo de neoplasias¹¹⁷. Puesto que la inflamación sistémica promueve la arterio-esclerosis, por medio de las citoquinas, esto podría explicar el elevado riesgo cardiovascular observado en este tipo de sujetos, así como el aumento de otras enfermedades asociadas a la inflamación, como por ejemplo la diabetes.

El burnout, también altera la función cardiovascular y su neuro-regulación por el sistema nervioso autónomo, al relacionarse con aumentos del tono simpático del corazón y de los vasos, así como con disminuciones en la fisiología vagal cardíaca y la sensibilidad barorrefleja arterial¹¹⁸. Se ha observado, que los sujetos con altos niveles de burnout, presentan mayor frecuencia cardíaca y menor variabilidad de la frecuencia cardíaca¹¹⁹⁻¹²¹. Por otra parte, los trabajadores con burnout, presentan una tensión arterial sistólica más baja que quienes no lo padecen^{106,122-124}. El burnout, se ve asociado al trastorno cardiovascular (CVD), a través de los procesos inflamatorios sistémicos ya referidos, y también por medio de alteraciones en mecanismos como la activación de la coagulación o la fibrinólisis^{106,125-127}. El agotamiento emocional, es un predictor de la hospitalización subsecuente no sólo por CVD, sino también por trastorno mental¹²⁸.

Aunque conceptualmente diferentes, el burnout y los trastornos mentales, han sido ampliamente relacionados. Se ha dicho que un padecimiento prolongado del síndrome, podría conducir al desarrollo de trastornos psiquiátricos en general¹²⁹, de trastornos emocionales por ansiedad y depresión en particular^{125,130-133}, o incluso a la aparición de ideación autolítica^{134,135}. Otras consecuencias psicológicas negativas, que acompañan al burnout, son: sentimientos de frustración, ánimo deprimido, desesperanza, falta de significado, sensación de fracaso, impotencia, desmotivación, baja autoestima, irritabilidad, sensibilidad interpersonal, suspicacia, ideación paranoide, baja tolerancia a la frustración, comportamientos hostiles, obsesión-compulsión, dificultades a la hora de tomar decisiones, falta de concentración, tics nerviosos e incapacidad para relajarse^{11,68}. También, se han descrito discapacidades cognitivas, como reducciones en la memoria verbal, y en la atención auditiva y visual¹³⁶. Además, se ha visto que las consecuencias fisiológicas y psicológicas del estrés crónico, pueden persistir mucho más allá de la cesación del acontecimiento estresor¹³⁷.

El burnout, se asocia también a conductas que perjudican la salud, como pueden ser: fumar, consumir alcohol, ingerir alimentos con alto contenido calórico o abusar del café y otras sustancias³⁰. Esto es debido a que la gente a menudo se distrae de las situaciones angustiosas, mediante la participación en este tipo de actividades. Dichos hábitos, pueden aliviar el malestar a corto plazo, pero a costa de un deterioro a largo plazo en el estado de la salud^{138,139}. Los comportamientos mencionados, se asocian a estilos de afrontamiento pasivo basados en la evitación¹⁴⁰, y las relaciones entre el estrés laboral y estas conductas, podría estar mediada por el empobrecimiento de los recursos de los trabajadores, tal y como ha sido descrito desde la teoría de la conservación de los recursos¹³⁸. Fuerzas sociales, culturales y económicas, han provocado grandes transformaciones en las

estructuras organizativas modernas, con efectos significativos sobre las condiciones de trabajo. Si estos cambios, llegan a violar el contrato psicológico, es decir, las creencias que los trabajadores tienen respecto a lo que el empleador está obligado a proporcionar, sobre la base de un intercambio recíproco, es esperable que se produzca un aumento en los niveles de burnout, con una mayor presencia de las conductas referidas, debido a graves disminuciones en el bienestar²².

El burnout, es motivo de actitudes y comportamientos indeseables, tanto para el individuo que lo padece, por la incapacidad que produce, como para la organización en la cual desempeña su rol profesional, por los gastos que origina¹⁴¹. Se trata de uno de los daños laborales más graves que aparecen en las organizaciones del trabajo actuales, con enormes consecuencias, no sólo personales, sino también económicas e institucionales. El burnout, se ve relacionado con el absentismo, con la intención de abandonar el puesto y con rotaciones de personal excesivas, lo cual genera un gasto añadido importante en la economía de las organizaciones, debido a la continua necesidad de contratar y formar a nuevos trabajadores¹⁴². Estados de agotamiento severo, aumentan el riesgo de ausencia en el puesto por enfermedad, o también de baja laboral certificada por especialista médico, independientemente de la prevalencia de trastorno mental o de enfermedad somática¹⁴³⁻¹⁴⁷. Algunos factores clave asociados a las bajas laborales son: largas jornadas de trabajo, sobrecarga, presión en el puesto, los efectos de todos ellos sobre la vida personal, falta de control en el trabajo, ausencia de participación en los procesos de toma de decisiones, apoyo social pobre, ambigüedad y conflicto de rol, y estilos de dirección inadecuados¹⁴⁸. El burnout, es un importante factor de riesgo a la hora de explicar la duración de las bajas, de manera que a mayor padecimiento del síndrome, podemos encontrar una duración mayor de la baja laboral¹⁴⁹.

Otras consecuencias del síndrome hacen referencia a la infracción de normas, reducciones del rendimiento y desempeño profesional, deterioros de la calidad asistencial o del servicio, e incluso a la presencia de accidentes^{6,11,150}. Cuando el personal que experimenta burnout, opta por quedarse en el puesto, su productividad y eficacia disminuyen de forma acusada, en una suerte de espiral de disminución de la eficacia. Por otro lado, las personas que están quemadas suelen provocar conflictos interpersonales, perturbando el trabajo de sus compañeros. El burnout es "contagioso", y puede perpetuarse y extenderse incluso a la vida familiar^{26,68}. Otro resultado dramático del síndrome de burnout, es la renuncia definitiva de empleados altamente cualificados, con el consiguiente perjuicio en la trayectoria profesional del trabajador, así como del normal funcionamiento de la organización^{151,152}.

Operacionalización [Operationalization]

El síndrome de burnout, no posee una entidad nosológica propia en las clasificaciones psiquiátricas actuales, puesto que no aparece explícitamente referido en ninguno de los sistemas diagnósticos psicopatológicos comúnmente utilizados, DSM-IV o CIE-10. En el primero, puede ser incluido bajo la categoría 'trastorno adaptativo', al coincidir con el desarrollo de síntomas emocionales o comportamentales en respuesta a un estresor psicosocial identificable¹⁵³. En el segundo, habría de ser considerado un 'problema laboral', por incluir aspectos como la insatisfacción en el trabajo y la incertidumbre sobre la elección profesional¹⁵⁴. Es fácil observar que, el síndrome de burnout, presenta un cuadro clínico mucho más grave e incapacitante, tanto para el individuo como para el ejercicio de su actividad profesional, que lo referido en las etiquetas diagnósticas mencionadas. Debido a que estas posibilidades diagnósticas, no recogen las características del síndrome en toda su amplitud y complejidad, parece recomendable contemplar el burnout, como una patología con entidad propia¹¹.

El burnout, ha sido tradicionalmente evaluado de manera dimensional a través del cuestionario 'Maslach Burnout Inventory', considerado estándar clásico durante largo tiempo. Ya hemos dicho que este instrumento, en un principio, se orientó hacia la evaluación del síndrome en trabajadores de profesiones asistenciales o de servicios¹⁹. Posteriormente, fue desarrollada una nueva versión, el 'Maslach Burnout Inventory-General Survey', que permitió cubrir con mayor precisión todo tipo de ocupaciones laborales²¹. En general, ha sido aceptada la validez de contenido de esta nueva definición, formada por las dimensiones fuertemente correlacionadas entre sí: agotamiento, cinismo e ineficacia²⁰. No obstante, no hay total consenso respecto a si el fenómeno del burnout se encuentra finalmente constituido por una, dos o tres dimensiones¹⁵⁵⁻¹⁵⁷. La mayoría de los autores, coinciden en que el agotamiento vendría a ser una dimensión central, aunque las otras dos dimensiones no parecen ser del todo incidentales, puesto que recogen aspectos muy importantes para el bienestar de los empleados^{158,159}. También, se ha propuesto excluir de la definición la dimensión ineficacia, argumentando que no forma parte del núcleo definitorio duro del síndrome de burnout^{25,158,160-162}.

A pesar de que esta última versión del cuestionario MBI, se ha comportado como un instrumento más o menos consistente, a través de distintas ocupaciones y con una gran aceptación internacional^{20,163-165}, dicho instrumento presenta no obstante algunas debilidades psicométricas, que obligan a utilizarlo con cierta precaución y reserva¹¹. A esto, hay que añadir que no ha sido desarrollado a partir

de la observación clínica, ni se ha fundamentado en una teorización sistemática del síndrome, sino que ha sido propuesto inductivamente, mediante la agrupación factorial de un conjunto más bien arbitrario de ítems¹⁶⁶. Esta definición del burnout, también ha sido fuertemente criticada puesto que, como ya hemos visto, no deja claro el tipo de relaciones que presenta entre los componentes que la constituyen, ni tampoco aclara los antecedentes y consecuentes generales del síndrome, por lo que carece de la estructuración teórica necesaria^{157,167-169}. Es por ello que algunos autores se han visto embarcados en la tarea de determinar los factores antecedentes del burnout¹⁷⁰, con la idea de que un entendimiento completo de la etiología del trastorno, podría facilitar su reconocimiento temprano^{42,44}.

Debido a las inconsistencias mencionadas, y con objeto de superarlas, han sido desarrollados varios instrumentos, que permiten evaluar el burnout mediante una serie de definiciones, que presentan un acusado carácter propio. Algunos de estos instrumentos son: el 'Burnout Measure' (BM)²³, centrado fundamentalmente en el agotamiento; el 'Oldenburg Burnout Inventory' (OLBI)^{25,161}, enfocado tanto en el agotamiento como en la falta de compromiso; el 'Shirom-Melamed Burnout Questionnaire' (SMBQ)¹⁷¹, que incorpora la fatiga física, el cansancio cognitivo, la tensión y la apatía; el 'Areas of Worklife Scale' (AWS)^{85,172}, que evalúa el ajuste entre el trabajador y su organización en importantes aspectos de la vida laboral, el 'Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo' (CESQT)¹¹, que valora además los sentimientos de culpa asociados al burnout; y el 'Cuestionario Breve de Burnout' (CBB)^{173,174}, muy útil por su gran brevedad y por su visión del trastorno como un proceso. De todos modos, ninguno de estos instrumentos alcanza a reconocer los subtipos clínicos: frenético, sin-desafíos y desgastado, a través de los cuales puede llegar a manifestarse el burnout, tal y como ya se ha referido. Estos perfiles, al haber sido propuestos desde una perspectiva fenomenológica, aportan un punto de vista del síndrome que resulta significativo para el propio individuo afectado. Es por ello que, parece interesante, tratar de integrar dichos subtipos en una nueva definición operativa del burnout, que permita un abordaje específico del trastorno, a través de perfiles clínicos.

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Chapter 2

Characterization of a new definition of burnout*

"In his moments of sorrow, he asked himself if there was still something that justified the fact that he considered himself, even if it was only a little, superior his fellow citizens, to those dumb and blinkered petty bourgeois. Where were now the imaginative dynamism and the bold idealism of his youth? Working as if it was a game and playing with the work, pursue some ambitions that had been conceived half serious, half joking, giving them the only value that they may have as a symbol of something different... Achieving those engagements, fruits of a cheerful skepticism, and stretching the truth required having a lot of nerve, humor sense and a good mood; but he felt indescribably tired and world-weary".

(Thomas Mann, Los Buddenbrook, 1901)

* Montero-Marin J, et al.: A new definition of burnout syndrome based on Farber's proposal. *Journal of Occupational Medicine and Toxicology* 2009, 4:31.

Abstract

Background

Although diverse definitions have been construed for burnout syndrome, most authors consider it to be a single phenomenon, the result of chronic work-related stress. However, in order to enable specific intervention strategies to be adopted, it is first necessary to establish different profiles for the syndrome. In this respect, have been proposed three burnout types ('frenetic', 'underchallenged' and 'worn-out'), each of which requires different means of dealing with frustration in the workplace. This study is an attempt to define and systematize the properties that characterize this typology proposal.

Methods

For this purpose, the documents considering preliminary typology were examined by means of qualitative content analysis supported by grounded theory. Semiotic analysis under the structuralist paradigm was then performed on the core category resulting from the previous analysis.

Results

A new definition of the syndrome was based on clinical subtypes, consisting of frenetic (involved, ambitious, overloaded), underchallenged (indifferent, bored, with lack of personal development) and worn-out (neglectful, unacknowledged, with little control). A classification criterion (degree of dedication at work), made up of three different burnout subtypes (frenetic, underchallenged, and worn-out) capable of integrating the entire proposal was formulated.

Conclusions

Understanding the development of burnout through a differential definition of the syndrome, as a succession of stages characterized by the progressive diminishing of dedication to work, could serve for the establishment of specific therapies and for the prevention of the disorder.

Background

Burnout syndrome is considered an important work-related illness in welfare societies. It was through observations by Freudenberger¹ inside a detoxification clinic in the mid 1960s that the first scientific descriptions came to light of staff affected by this disorder. It was only in the 1980s that evaluation criteria for the syndrome became available, through the design of a standard measurement instrument, the Maslach Burnout Inventory or MBI². Burnout is a psychosocial syndrome. It involves feelings of emotional exhaustion, depersonalization and diminished personal accomplishment at work. Emotional exhaustion is a situation where, owing to lack of energy, workers perceive they are no longer able to participate on an emotional level. Depersonalization entails the development of negative attitudes and feelings towards persons for whom work is done, to the point where they are blamed for the subject's own problems. Diminished personal accomplishment is a tendency in professionals to negatively value their own capacity to carry out tasks and to interact with persons for whom they are performed, and feeling unhappy or dissatisfied with the results obtained.

The MBI questionnaire has been adapted for application not only to human services professions but to all types of occupations in general. An updated definition of burnout, constructed using the latest version of the MBI³, is that proposed by Maslach et al⁴. In their description it is 'a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy'. Exhaustion is the feeling of not being able to offer any more of oneself at an emotional level; cynicism is contemplated as a distant attitude towards work, the people being served by it and among colleagues; inefficacy is the feeling of not performing tasks adequately and of being incompetent at work.

Burnout is generally considered a response by a subject to chronic work-related stress in an attempt to adapt or protect oneself from it⁵. From a transactional approach, stress is defined as 'the result of a relationship with the environment that the person appraises as significant for his or her well-being and in which the demands tax or exceed available coping resources'⁶. This is the case because a life event is not what produces stress; rather, it is caused by the appraisal the affected person makes of it⁷. According to Lazarus and Folkman⁶, coping is 'cognitive and behavioural efforts to manage specific internal and/or external demands that are appraised as taxing or exceeding the resources of the person'. A person will be psychologically vulnerable to a determined situation if he or she does not possess sufficient coping resources to handle it adequately, and if

at the same time, he or she places considerable importance on the threat implicit in the consequences of this inadequate handling⁶. From this perspective, burnout syndrome may be seen as a progressively-developed process resulting from the use of the relatively ineffective coping strategies with which professionals try to protect themselves from work-related stress⁵.

Burnout has also been described as an experience where the worker is aware of considerable discrepancy between his or her efforts and the results, between the invested efforts and the rewards obtained at work⁸⁻¹⁴. This phenomenological analysis framework is introduced into the subjective experience of those affected, and the conclusion is reached that the burnout process is triggered when the worker feels that his or her efforts are disproportionate to the gratification achieved, and consequently is no longer able to justify or cope with further investment of effort¹⁰. Burnout syndrome may be seen as the continuous perception that efforts made to carry out tasks are not effective, because expected gratitude, recognition or success at work are not being achieved^{9,12}.

Farber¹⁴ criticizes the fact that most researchers have contemplated burnout as a single phenomenon, i.e. as a syndrome with relatively consistent aetiology and symptoms in all individuals. On the contrary, he proposed differentiation of the syndrome based on the description of three clinical profiles⁸⁻¹⁴. These different types of burnout, which the author classes as 'frenetic', 'underchallenged' and 'worn-out', could be the result of different ways of responding to stress and frustration at work. The frenetic type works increasingly harder until he or she is exhausted and seeks satisfaction or success to equal the stress caused by the invested efforts. The underchallenged type is presented with insufficient motivation and must therefore cope with monotonous and unstimulating work conditions that do not provide necessary satisfaction. The worn-out type gives up when faced with too much stress or very little gratification at work. Consequently, while some professionals cope with dissatisfaction by investing greater effort in an attempt to achieve expected results, others cope by neglecting their tasks, in an attempt to balance the reasoning between rewards and their investment^{11,12,14}.

According to Farber⁸ individual burnout treatments should be designed in relation to the aetiology and symptoms present in each subject. Thus, a level of specification in the treatment attending to individual differences would need to take into account the source of the feelings of frustration and clarify the stressors endured, the way of coping with them and the symptoms the syndrome is manifested through¹³. Farber's intuitive classification of burnout syndrome has raised the possibility of questioning the uniformity of the syndrome, and considers the need to design more specific therapeutic approaches. Nevertheless, in order

to speak seriously of a typology, we need to look at a construct made up of abstract elements integrated into a unified conceptual model where there may be intensification of one or two aspects of concrete experience¹⁵. Farber's proposal for a typology does not achieve this degree of systematization, as it is not conceptually designed by means of abstract terms ordered over the same dimension.

The purpose of this research work is to resolve this lack of formal precision. Its principal aim is to explore and describe the attributes that could be used to characterize each of the clinical profiles proposed by Farber. Our secondary aim is to establish a classification criterion through which the generated conceptual structure would make sense, with the further intention of productively consolidating a new theoretical model.

Methods

We have adopted a qualitative social research approach and make use of the strategy known as documentary analysis¹⁶. The documentation covered by our analysis comprised the totality of the published writings of Barry Farber that impart his typological proposal. When selecting the corpus, we contacted the author in order to put together a list of all of his references. The selected texts comprised a total of seven written documents: three scientific articles, three book chapters and one communication⁸⁻¹⁴. Throughout his scientific output, the author highlights the experiences and interpretations of his own patients through a large number of direct quotes. Together with this, he has attempted to approach the object of his study from an existential perspective, which places his work on a level of humanistic strategy close to phenomenology in his version applied to clinical research.

Farber developed his theory model from his clinical observations of teachers, although he states that it is applicable to service professions in general. He also based his findings on the results of in-depth interviews with sixty psychotherapists (psychiatrists, psychologists and social workers, with different levels of experience and from both public and private practice). The results of this work are presented in one of the documents included in the textual corpus⁸, although the article did not cite the psychotherapists directly, the author makes reference to them throughout his elaborate text. In other works^{9,10,13}, in addition to the author's explanations, we do find direct references to the interviewees (six primary and secondary school teachers, a number of them still active and others who finally chose to give up their profession, both male and female between

twenty-six and fifty-six years of age, and with experience in education ranging between three and thirty years. Other works included in the corpus^{11,12} provide a much more elaborate theory, while the last¹⁴ is a preliminary validation study.

In order to reveal the levels of meaning underlying the surface of the corpus, we have made use of the methodological technique for obtaining information known as content analysis. According to Piñuel¹⁷, content analysis is a series of procedures for the interpretation of communication products (messages, texts discourses) originating in unique, pre-recorded communication processes. Based on measuring techniques, at times quantitative (statistical techniques based on unit counts), at times qualitative (logical techniques based on a combination of categories), their purpose is to elaborate and process relevant data on the conditions under which those texts were produced, or on the conditions that may arise for their later use.

The type of content analysis used was of a qualitative, vertical and interpretative nature¹⁸, with a projected sampling design and an emerging and non-frequential design for the analysis categories¹⁶, all of which followed the analytical procedure provided by grounded theory. This procedure is a development on the phenomenological perspective, which becomes its intellectual root¹⁶. It is therefore congruent with the characteristics of the corpus. It is based on the 'constant comparative method'¹⁹, a strategy that enables concepts to be systematically generated and analysis and explicit coding to be combined with theory building. This type of analysis sets out to construct conceptual categories, marking their properties or significant features and the hypotheses that establish relations between all of them.

The following procedure was observed. A team of researchers comprising a native translator, two clinical psychologists and a psychiatrist worked together to achieve the translation of Farber's texts into Spanish and to divide the corpus into theme units using a structure of semantic fields¹⁸. Under mutual agreement, the research team subsequently made their first classification of the units, differentiating themes in general, which allowed them to separate references to typology from the other themes. By means of 'open coding'²⁰, provisional interpretations of the segments belonging to the typology reference group were made. For this, the information contained in each of the selected units was compared and a common conceptual denomination was assigned to the group of segments sharing the same clinical profile as a standard.

As a next step, we set out to discover the properties of each of the profiles. We used a new type of classification, 'axial coding'²¹, consisting of intense

analysis focused on one category each time. This new form of analysis, performed independently by each of the researchers, comprised an active and systematic search for properties by means of the constant comparison of the segments referring to each of the profiles separately. At the same time, interpretative notes were written down, which allowed relations to be established between the emerging properties. Finally, in order to define an agreed system that summarized the properties for each type, the characteristics obtained by each researcher were brought together and agreement was achieved on a total of five perfectly defined and mutually exclusive attributes for each profile.

The possible relations between the properties were clearly expressed in order to represent a highly parsimonious solution, which enabled the emerging conceptual structure to gain density. Once agreement was reached with regard to possible relations, we were able to reduce the theoretical framework by means of the merger and transformation of related properties into others on a higher level. Characteristics that belonged to disorders other than burnout, such as emotional disorders caused by anxiety or depression were also excluded. The result of this process gave rise to a total of nine sub-categories, three for each type, which summarized the properties of the entire typology.

At this point, we set out to develop a 'core category'²¹ that was able to express the totality of the typology coherently in a single dimension. For this purpose, we attempted to decide which of the properties best summarized the characteristics of each one of the profiles. Once the outstanding property for each profile was agreed on, we developed a category virtually able to integrate these three basic properties in one single dimension. By means of 'selective coding'²¹ of the corpus through the properties coming under this new core category, we observed how this category indeed provided the complete typology with an integrated, essential core framework, which was the nucleus of the emerging theory.

Once this stage was reached, we adopted a stance under the structuralist paradigm, making use of the semiotic square technique. For Floch²², the semiotic square is a basic instrument of semiotic study and serves for the development of typologies. Abril²³ speaks of the semiotic square as a canonical representation of a set of relations. Quoting Greimas, Imbert²⁴ states that it is 'the visual representation of the logical articulation of any semantic category... through which a description of the organizational model of signification is noted and its form of production by means of a typology of elemental relations'. These relations are: contradiction, contrariness and the ability to be complementary, which are based on simple operations of assertion and negation, and by means of which the

relation of reciprocal presupposition maintained by the primitive terms of the same semantic category are formalized. We used the end values of the core category as primitive terms for the analysis, and, by means of a review of their elemental relations, we formalized a classification criterion that finally gave meaning to the conceptual structure of the entire typology.

As can be appreciated, we have chosen a large combination of methodological triangulation perspectives, strategies and techniques, with the aim of increasing the consistency of the study. This was because we accepted the idea that qualitative research is inherently multi-method in focus²⁵. Therefore, by consciously combining the elements referred to, we tried to give greater scope, rigour and depth to our study.

Results

Types Of Burnout

In Table 2 we describe the properties that characterize the clinical properties of burnout syndrome based on our study and according to the content of the analysed descriptions.

Table 2: Properties of three burnout types

FRENETIC	UNDERCHALLENGED	WORN-OUT
. Involvement in work	. Indifference and superficiality in tasks	. Neglecting responsibilities
. Ambition and need for achievements	. Lack of personal development	. Absence of control over results
. Inability to acknowledge failure	. Contemplating another job	. Problems with reward system
. Neglecting own needs	. Monotony and boredom	. Difficulties in performing tasks
. Anxiety and irritability	. Absence of overload-induced stress	. Depressive symptomatology

Frenetic type

The frenetic type can be seen as a category of subjects who are highly applied and committed to their work, and who are greatly characterized by the investment of an enormous amount of time and effort in his or her dedication to work. These are subjects whose feelings of dissatisfaction cause them to increase their inputs, and are described by the author as

"Those who in response to frustration work increasingly harder."

(Farber, 1990, p. 35)

. Involvement in work

A frequently described property of this profile is the increasing effort the subject makes when faced with his or her difficulties at work in an attempt to raise the probability of producing expected results. This characteristic has been conceptualized as involvement and is reflected in the corpus by Farber thus,

"Those who in response to frustration work even harder in an attempt to produce the results they expect."

(Farber, 1990, p. 40)

The author cites the example of a frenetic individual (Paula, twenty-six years old, primary school teacher, two years' experience at work) who left her career with the feeling of not being able to give more of herself, probably because

"For the most part, she reacted to the strains at work by doubling her efforts ..."

(Farber, 1991b, p. 119)

The frenetic type is a profile for tenacious and energetic persons, who cope with adversity with considerable enthusiasm and interest, doing all they can and giving all they are able to give. When they perceive that the results obtained do not correspond to the invested effort, they work with more determination to meet the goals they set initially. Farber explains that

"In the face of adversity and anticipated failure, these teachers often intensify their efforts and do everything possible to make classroom success more likely."

(Farber, 2000b, p. 682)

These subjects appear to believe that their efforts will lead them to success. They feel they are capable of overcoming all obstacles on their own and, consequently, they only need to reach the point where their investment will produce results. As reported by Farber,

"When input fails to achieve the hoped-for output (...) (they) work harder and harder in the belief that a point will be reached where their efforts finally will succeed."

(Farber, 2000b, p. 682)

. *Ambition and need for achievements*

Another of the properties characterizing the frenetic type is ambition, in the sense of the considerable need for achievements and external approval resulting from brilliant operations. This property is accompanied by great expectations in relation to performance, behind which we can presume there is a strong desire to feel special and gain admiration. This profile therefore attempts to surpass others by trying to be the best at his or her job. This was expressed by one of Farber's patients (Susan, thirty, high school teacher, three years' experience),

"Why do I always have to prove that I'm better than everyone else around me?"

(Farber, 2000b, p. 684)

Frenetic workers begin their careers with ambitious, sometimes unrealistic aspirations based on an idealistic view of the world. They seek good results without recognizing the negative aspects of their *modus operandi* and fantasize with the idea of accomplishing significant goals, placing themselves under growing pressure caused by their exaggerated need to obtain praise and distinction. As we can observe in the course of a psychotherapy session with Susan:

- "... I kinda like thinking of myself as, well, maybe a little gutsier or more unflappable than most people.

- Unflappable?

- That I won't give up even when others would. That I give more than anyone else would and care more than anyone else.

- That makes you special and I guess that feels good.

- Yeah, it does.

- I think we need to talk about why it's so important to feel special in this way ..."

(Farber, 2000b, p. 684)

Seduced by ideas of moral superiority, these subjects like to think that only they know how to properly solve matters related to their jobs, and experience

satisfaction from the expectation that others will be able to discover their skill and sacrifice. They come to justify their action with altruistic arguments (they even feel guilty if they do not meet the objectives they set for themselves) and criticize people who do not share or understand their commitment and perfectionistic obsession. The author considered these ideas in the course of a psychotherapy session with Susan,

"... (we) began exploring the roots of her need to be perfect, better than others, and/or excessively admired by others for her apparent selflessness."

(Farber, 2000b, p. 683)

. Inability to acknowledge failure and difficult situations

Frenetic subjects are unable to accept failure or distinguish difficult-to-solve situations. They do not tolerate the limits set by reality owing to their strongly-instilled belief that the results of their work reflect personal worth and will. According to Farber,

"... the acknowledgement of failure is nearly impossible inasmuch as it reflects on their personal worth as human beings."

(Farber, 1990, p. 40)

Defeat is unthinkable for this profile of subjects as they understand work as an extension of themselves that must be successfully proven. Results to the contrary would damage their self-esteem given that it is based on the achievements reached and fulfilled expectations. Desperate to prove that they are capable of achieving what they set out to, these subjects strive endlessly in an effort to secure their personal worth. Therefore,

"... feeling so energetic and optimistic (or so desperate to prove themselves and regain some measure of self-esteem) that they invest more than ever and more than is healthy in their work ..."

(Farber, 1991a, p. 97)

Although these results are at times imposed by the very nature of the problem, frenetic subjects fight daringly and desperately against all manner of odds and refuse to change their outlook so as not to compromise the integrity of their value system. According to the author,

"Individuals who fall in this category believe in maximum effort till success, with no let-up allowable; failure is never attributed to the nature of the problem but is always seem as a failure of will."

(Farber, 1991a, p. 90)

. *Neglecting own needs*

Frenetic individuals are so completely focused on obtaining results that they can even neglect their own needs, which means risking their health and personal life as they exert themselves without letting-up for long periods of time. They subject themselves to great pressure,

"These individuals risk their physical health and neglect their personal lives to maximize the probability of professional success."

(Farber, 1990, p. 40)

They suffer from the constant intrusion of their jobs into their private lives and feel they have failed to keep their work in perspective, given that they have not attained a balance between personal and professional needs. In Susan's words,

"I don't even have time to see my friends. I'm too tired or I'm busy planning."

(Farber, 2000b, p. 684)

These are excessively dedicated subjects, with an intense and incessant work pattern that determines a pattern of counterproductive efforts. They believe they can keep up their levels of exertion continually, until they are no longer able to cope and become exhausted or even ill, becoming emotionally and physically drained.

"They may appear to be frazzled or harried; nevertheless, they continue to work and attempt to solve problems at a nearly non-stop pace. Individuals rarely can sustain this energy indefinitely (although those suffering from classic burnout usually believe they can). They typically succumb to emotional and/or physical exhaustion."

(Farber, 2000b, p. 682)

Describing Paula's state before leaving her profession, Farber says:

"She felt she just could not keep up the pace of her efforts and was tired ..."

(Farber, 1991b, p. 120)

. Anxiety and irritability

Continuous insistence under these conditions, in an attempt to satisfy their needs of achievement at the cost of overinvolvement and neglect of their own health, without acknowledging their own limitations, only increases the stress experienced by subjects of this type. Susan describes her situation this way:

"I really feel like I'm at the edge ..."

(Farber, 2000b, p. 683)

This situation ends up exhausting internal resources and can lead to the development of clinical symptoms of anxiety owing to excessive worry about work demands. Subjects who have reached this stage have the sensation of feeling changed, altered and overwhelmed, and try to seek help by complaining of

"...anxiety, anger, confusion, teariness, and sleep problems ..."

(Farber, 2000b, p. 681)

Stress ensuing from excessive exertion causes difficulties in resting or even sleeping. It leads subjects to enter a state of anxiety and irritability that produces continual anger and outbursts of rage directed at persons surrounding them. Referring to Susan, Farber says that

"She also expressed a great deal of anger toward her boyfriend for 'failing to understand' the importance of her work to her."

(Farber, 2000b, p. 682)

Underchallenged type

The underchallenged type is made up of subjects who have lost interest in their occupations and carry out their work tasks in a superficial manner. This is a group of subjects who cope with problems at work without too much involvement, seeing as they have lost their motivation along the way. In short, they are empty of challenges, motivation or desire for engagement.

"Those who perform their work perfunctorily, having lost interest in work they now find unchallenging."

(Farber, 1990, p. 35)

. Indifference and superficiality in tasks

An important property of this clinical profile is the indifference with which subjects cope with tasks. This is understood to be a way for them to perform tasks in a superficial and detached manner, although without reaching the point of neglecting their professional responsibilities altogether. Work is not appealing enough to justify greater investment of dedication, and the subject has partially lost interest in his or her commitments. According to Farber, the attitude expressed in the way of speaking of those affected is:

"... there's a job to do and I'll do it reasonably well, but I won't go out of my way to do it particularly well because the job isn't sufficiently engaging or interesting."

(Farber, 1990, p. 41)

These detached subjects cope with obstacles in their work by reducing their energy and enthusiasm. They work perfunctorily, although they do not neglect their obligations. These are disenchanting individuals who reduce their involvement and work without any passion because they find no meaning or amusement in their tasks they perform.

"The underchallenged teacher continues to do a professional job, does not especially resent the work, but does not especially look forward to it either. Teaching has lost its meaning ..."

(Farber, 1991a, p. 95)

. Lack of personal development

Underchallenged subjects feel dissatisfaction on thinking that they are not developing as persons through their work. This is because they do not see their talents recognized in performing tasks that do not provide new challenges for them. Farber refers to this characteristic when he speaks of

"Individuals whose range of talents are insufficiently recognized or exercised in their professional settings."

(Farber, 1990, p. 42)

Subjects of this type are focused on obtaining a kind of reward that does not seem to be reached in the performance of their tasks. They think their capacity and talent is above what is required of them by their job, and that they do not use their skills enough to identify themselves with it. In words of one patient, (Joan, twenty-six, primary teacher, four years' experience):

"I feel like I have outgrown my job ... I know it sounds conceited, but I feel smarter than my job ..."

(Farber, 1991a, p. 96)

They seem to be possessed by very demanding expectations with respect to the use of their abilities, which leads them to think that their current job only makes their personal development more difficult as it does not set them sufficient challenges. Farber describes Joan in this way:

"She came into therapy feeling that, given her abilities, she could or should be doing something more challenging and wondered why this wasn't the case."

(Farber, 2000b, p. 687)

These subjects have built up a narrowly-defined idea of their job and therefore find it totally lacking in interest. They have also lost their sense of proportion when considering their success at work and in other areas of their lives. They do not reach the point where their self-esteem is damaged. Although with an outlook that perhaps it will be in the future, their discontent leads them to question whether this field of work really is suitable for them.

"They have not incurred damage to their self-esteem ... instead, they have begun to realistically sense that their self-esteem might well be damaged if they continue in work that they find unfulfilling and insufficiently demanding of their skills and abilities."

(Farber, 1991a, p. 94)

. *Contemplating another job*

The dissatisfaction experienced by these subjects leads them to contemplate other kinds of work, and to question the suitability of their current job, to the point where they weigh up the possibility of or desire other employment options. Individuals in this group seem to cope with disenchantment in their jobs by

fantasizing over the possibility of taking on another more gratifying job. Subjects with this profile are invaded by feelings of doubt, restlessness and ambivalence towards their work, and propose new horizons for themselves in order to resolve them.

"... over time the underchallenged teacher begins to perform the work more perfunctorily, begins to question more whether this is the right field, begins to withdraw energy and enthusiasm."

(Farber, 1991a, pp. 94-95)

These ideas of giving up their profession could become affected by the appearance of guilt feelings, which partly attenuate the desire for change. This guilt may arise from their having lost the objective view of their natural entitlement to pursue their own needs. Nevertheless, these individuals will develop justifications and reasoning to explain their situation, either in the case where they take the decision to remain in their job or when they end up leaving it for another. Commenting on the case of Jill (thirty-eight, primary school teacher, seven years' experience), Farber says

"She felt somewhat guilty leaving teaching (to go into public relations) but justified it by reminding herself that she had given four good years to teaching and that she had certainly done "her share" of public service."

(Farber, 1991a, p. 97)

. Monotony and boredom

The prevailing detachment and lack of personal development in this profile is accompanied by a type of distress caused by boredom and the lack of stimulus, the source of which could be related to subjects performing tasks perfunctorily. Farber thinks that

"This is the group who feel stuck doing the same things every year and who, as a result, feel moribund, stale, left behind."

(Farber, 1991b, p. 122)

Repetitive and detached performing of functions, as if on an assembly line, doing the same thing over and over, day after day and year after year, will give rise to a stressful work atmosphere caused by routine and monotony. In these

conditions, the underchallenged subject seems to feel trapped in his or her job. Joan expressed this thus,

"I am doing the same things over and over again ... I just do not feel like doing it anymore ..."

(Farber, 1991a, p. 96)

. Absence of overload-induced stress

Underchallenged subjects do not seem to have to cope with large amounts of work, and are consequently not excessively fatigued or suffer as a result of it. In Farber's words,

"... underchallenged" subtype of burnout, wherein an individual is faced not with an excessive degree of stress per se (i.e. work overload) ..."

(Farber, 2000b, p. 677)

Nor do they perceive many difficulties in performing their tasks properly, so they are seen to be free from this type of anxiety and can perform their tasks with relative ease. They feel that they have problems at work relatively well under control and do not feel worn out by unwanted obstacles; nor do they become overwhelmed or angry because of them. As indicated by Farber,

"(This) type of burned out individual is neither fired up by unwanted obstacles, nor weighted down and overwhelmed by them."

(Farber, 1990, p. 40)

The attitude of indifference to work in jobs without major demands gives rise to a way of performing tasks without taking on too much stress. Here Farber refers to Jill; even after having left her job,

"She felt as if she had managed the strains of work relatively well and felt pleased at the job she had done."

(Farber, 1991b, p. 121)

Worn-out type

The worn-out profile consists of dispassionate subjects who have reduced their level of involvement to the point of neglecting their responsibilities. These

are workers with a degree of pessimism that has led them to lose all enthusiasm for their job, and have chosen to give up any effort in the face of the setbacks experienced. In this respect they are,

"Those who in response to frustration give up entirely."

(Farber, 1990, p. 35).

. *Neglecting responsibilities*

The most relevant characteristic of the worn-out type is neglect. This can be understood as a lack of personal involvement in tasks until they respond to any difficulty by giving up. This idea is present in the corpus through segments such as that used to introduce this profile, or in the following,

"These worn out individuals are simply not as personally invested in their work."

(Farber, 1990, p. 40)

Worn-out workers are so aware of the difficulties that they reduce their sense of purpose to the point of managing to disconnect from their work. They play down the importance of tasks and minimize their objectives, with the feeling that they can no longer give of themselves. In the words of a patient, Jim (forty-one, high school teacher, ten years' experience),

"I know I get back less by giving less, but I just can't give anymore. I just don't give a damn."

(Farber, 2000b, p. 679)

Despite obtaining less personal gratification (achieving results that are not very flattering, in a job that is not very well done), these subjects reduce their level of involvement to the extreme of neglect as a way of balancing efforts and rewards. In this sense, Farber says that

"Worn-out teachers react to stress not by working harder but rather by working less hard; they attempt to balance the discrepancy between input and output by reducing their input."

(Farber, 1991a, p. 87)

They accept neglecting their responsibilities as a way of coping with difficulties, stress and frustration in a final attempt before seeing themselves affected by their work.

"Worn-out workers have quit before they become totally consumed by their work."

(Farber, 1991a, p. 87)

. Absence of control over results

These subjects are worn out by the build-up of frustration brought about by having to cope with situations they feel they have no influence over. According to the author,

"They have been worn down by the cumulative effects of dealing with situations that they perceive as beyond their control ..."

(Farber, 1991a, p. 87)

A condition that may favour the appearance and evolution of feelings of lack of control is when the worker continually has to deal with difficult-to-solve problems, especially if he or she has not come up with an adequate coping strategy. In these circumstances, worn-out subjects may even think they are immersed in a context plagued with hopeless situations, denying that their actions could have any effect on achieving better results.

"... he feels that several situations are 'out of control' and that nothing he does can make a difference ..."

(Farber, 2000b, p. 678)

According to the theory of learned helplessness, subjects of this type may experience deterioration in the way they deal with situations owing to their lack of confidence. Within the framework of this theory, we can understand the lessening of motivation in these subjects as a consequence of the damage done to their expectations of control. In Jim's words,

"I just don't care that much anymore ... I don't believe what I do or don't do makes much of a difference."

(Farber, 2000b, p. 678)

Worn-out subjects are convinced the results will be disappointing, regardless of whatever they do, and that nothing they might try will be able to change their situation. Continued experience of difficult-to-handle situations, together with the inner feeling of having no control over outcomes, has damaged their perception of their effectiveness, and, in the end, their willingness to face them. Farber makes reference to Hal (fifty-six, high school teacher, thirty years' experience), a patient who did not get involved because he thought that

"It is not worth it ..."

(Farber, 2000b, p. 678)

Jim expresses his situation the following way:

"Even when I've tried my best, the successes have been less than overwhelming and God knows never appreciated."

(Farber, 1991a, p. 88)

. Problems with organization and reward system

The neglect characteristic of this profile may also be explained by a background of prior learning within an organization managed with bureaucratic rules and demands, with an organizational system that does not recognize effort and dedication, in conditions of low autonomy.

"... seems to be most often manifest among more experienced individuals working in institutions with particularly oppressive bureaucratic structures. These individuals have been worn down by organizational politics, by seemingly petty rules and demands, by low pay and low autonomy ..."

(Farber, 1990, p. 42)

According to this view, workers with the greatest risk of suffering from this type of burnout are those working in large organizations who perform tasks under the subjective impression of having little support, and perhaps being guided by unrealistic expectations with regard to the possibilities of being shown gratitude and appreciation for their work. According to the author,

"... in settings offering little opportunity for advancement or recognition."

(Farber, 1990, p. 42)

. Difficulties in performing tasks

Worn-out subjects perceive the obstacles preventing them from doing effective work as oppressive, and they feel disappointed and discouraged when faced with difficulties that do not allow them to perform their tasks properly.

"Obstacles to effective work, therefore, are seen as oppressive by these individuals and tend to dampen (rather than heighten) their motivation."

(Farber, 1990, p. 40)

They feel overwhelmed by the structure that imposes an excessively narrow definition of what can be expected of their performance, based on general and binary appraisals (everything is wrong), instead of specific and flexible ones (reasonable progress has been made in this case). Subjects of this type focus on negative aspects and feel frustrated with their working conditions, owing both to lack of resources (personal and/or material) and to an excessive workload. They are therefore willing to recognize situations that pose some sort of difficulty as failures. Farber says that,

"... the bottom line is their willingness to face the fact that they cannot achieve the goals they had once set for themselves ..."

(Farber, 1991a, p. 89)

They seek more comfortable positions and stop worrying about things. They reason their failures and devise complaints through which they can attribute blame to external factors. They feel that nobody understands how difficult it is to do their work well and that nobody understands what they have to put up with. They surround themselves with people who share the same outlook on things. The author quotes Shanker in saying that,

"... their beef is with the system and circumstances that constantly impede the realization of their goals."

(Farber, 1991b, p. 123)

. **Depressive symptomatology**

Subjects of this type suffer from emotional exhaustion to the extent that, according to Farber, they may develop burnout together with depressive symptoms.

"The worn-out teacher manifests symptoms akin to those of depression, including a perceived loss of self-esteem, and often requires cognitive approaches that aim to rebalance his or her perceptions."

(Farber, 2000b, p. 677)

As with subjects suffering from depression, worn-out workers have damaged self-esteem. Moreover, the pessimism they are imbued with leads them to make errors of judgement when interpreting present events and perceiving the future.

"... tend to minimize successes, maximize failures, and perceive the future as inevitably as bleak as the present."

(Farber, 2000b, p. 680)

They cope with daily challenges and difficulties with apathy and lack of energy, and feel worn out and fatigued, which reduces their involvement in their work without taking the quality of their service into account.

"Those who are worn out have incurred damage to their sense of self-esteem -they are no longer personally invested in performing well on the job."

(Farber, 1991a, p. 89)

Workers of this type experience feelings of helplessness, desperation, discouragement, irritability and guilt. Hal, who was treated by the author and who finally gave up the profession, expressed the following opinion:

"I feel guilty sometimes about the good kids I am not teaching as well as I should ..."

(Farber, 1991b, p. 123)

Conceptual Characterization Of The Model

In this section, we give a summary of the properties of the different types, with the aim of providing a parsimonious presentation of the proposal until we are left with a single category that gives meaning to the differentiation established in the profiles.

Frenetic type

The frenetic type profile can be briefly characterized by the following properties: 'involvement', as an increasingly greater effort to face the difficulties of work, in an attempt to raise the probability of producing expected results; 'ambition', in the sense of a considerable need for achievements and external approval resulting from brilliant operations; 'rejection of failure', as an absence of acknowledgement of failure or of one's own limitations in the belief that results reflect personal worth; 'overload', in the sense of risking one's health and personal life for work, investing intense and uninterrupted effort; and 'anxiety and irritability', in excessive worry with work demands, until one feels overwhelmed and has difficulties relaxing or sleeping.

The properties of 'ambition' and 'rejection of failure' appear to be closely related. A considerable need for achievements and external approval could determine the absence of acknowledgement of failure and of one's own limitations. Therefore, we will now refer to both as a single term, 'grandiosity'. On the other hand, the property of 'anxiety and irritability' gives the impression of sharing symptoms of anxiety disorders too closely, so we chose to eliminate it. Thus, we have three subcategories to describe the frenetic type: 'involvement', as an increasingly greater effort to face the difficulties of work; 'grandiosity', in the sense of a considerable need for achievements, together with rejection of failure or limitations; and 'overload' which refers to putting one's health and personal life at risk for work.

Underchallenged type

The underchallenged type presents: 'indifference', as a way of performing work in a superficial and detached manner, although without neglecting all responsibilities; 'lack of development', defined as dissatisfaction felt on not seeing one's talents acknowledged in the performance of tasks that pose no new challenges; 'contemplating another job', in the sense of questioning the suitability of one's current job and weighing up other employment options; 'boredom', which

may be seen as one's experience of work as routine and monotonous, owing to the perfunctory performance of tasks; and 'absence of overload-induced stress', which corresponds to a way of performing tasks without too much stress as there is no need to cope with major demands.

The properties 'lack of development' and 'contemplating another job' can be considered closely related. The fact that one does not develop at work could be significant when it comes to desiring other employment options. We therefore will refer to both properties simultaneously as 'lack of development', in the understanding that this is the determinative property. The 'absence of overload-induced stress' could be associated with 'boredom' given that both appear to refer to a monotonous environment produced by lack of stimulus. We will therefore give the name 'boredom' to the property combining both characteristics. Thus, we have three subcategories to characterize this profile: 'indifference', as the way of performing tasks in a superficial and detached manner; 'lack of development', owing to the dissatisfaction of not seeing one's talents acknowledged until other employment options are contemplated; and 'boredom', in the sense of monotony, owing to the perfunctory performance of tasks without experiencing stress or major demands.

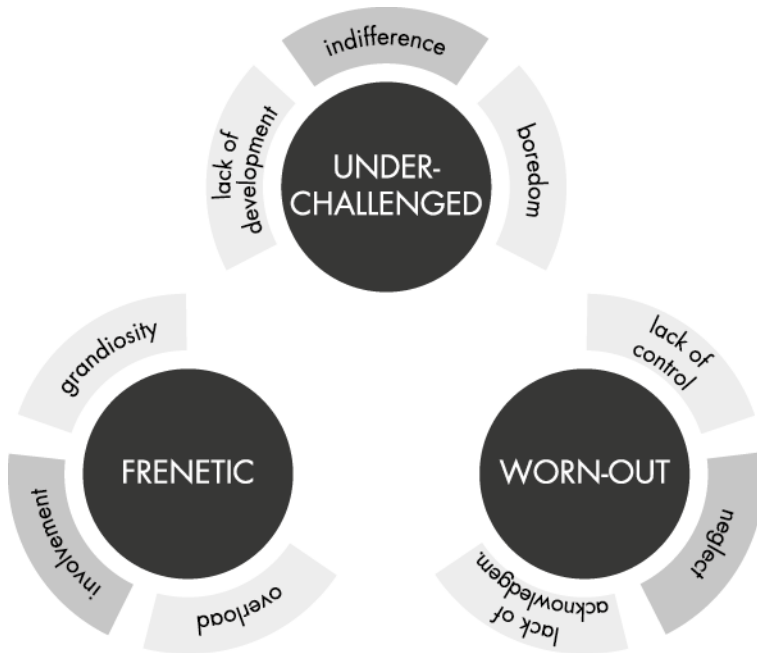
Worn-out type

Worn-out workers present: 'neglect', as a lack of personal involvement in work-related tasks, leading one to give up as a response to any difficulty; 'lack of control', as the presence of feelings of desperation caused by absence of control over results; 'lack of acknowledgement', when one feels the organization he or she works for does not acknowledge efforts and dedication; 'difficulties', as a feeling of oppression owing to the lack of resources and difficulties preventing one from performing effective work; and 'depression', as the presence of depressive symptomatology.

The fact that one feels great oppression brought about by the 'difficulties' faced in performing tasks, given that they prevent them from being carried out satisfactorily, could be related to the feelings of desperation caused by 'lack of control'. We have therefore decided to group both properties into one, which we now call 'lack of control'. We have also eliminated depressive symptomatology as it is more characteristic of other types of emotional disorders. In short, we can characterize the worn-out type through of the following subcategories: 'neglect', as the lack of involvement in work tasks to the point of giving up in the face of any difficulty; 'lack of acknowledgement', as the feeling of not seeing one's efforts

and dedication recognized; and 'lack of control', as the desperation caused by absence of control over results when experiencing difficulties in performing tasks.

Figure 2: Graphic representation of the conceptual characterization of the model



Core category: degree of dedication at work

Figure 2 allows the properties defining each of the clinical profiles to be appreciated. We have highlighted the characteristics of involvement, indifference and neglect as being the values making up the core category of the classification, the category capable of fitting the entire classification together. This category is based on the degree of 'dedication' at work. The involvement and neglect values corresponding to the frenetic and worn-out types, respectively, appear as opposites so they have been placed on opposite sides in the new dimension. On the other hand, the place taken by the indifference value of the underchallenged profile is not exactly clear.

Looking once more at the corpus, we can however see that on one occasion, the author of the classification described this type as

"... those who are relatively immune to frustration -who neither work harder nor give up but instead perform their work perfunctorily, having lost interest in work they now find unchallenging and unstimulating."

(Farber, 1990, p. 40)

This description of the underchallenged type as the negation of the basic properties characterizing the other two provides a clue on how to approach the matter of the formal establishment of the classification criterion. This aspect is dealt with in the following section.

Structural Definition Of The Classification Criterion

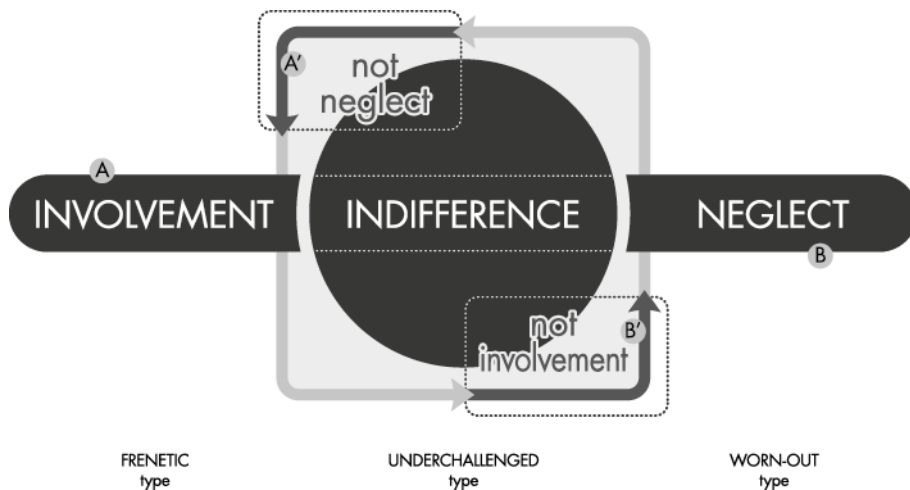
The complete set of properties in the proposal seems to be arranged around the core category of dedication, the end values of which are involvement in work, on the one hand, and neglect of tasks, on the other. These are two basic strategies for coping with difficulty - the involvement strategy, as increasingly greater effort when face with frustration, and the neglect strategy, in the sense of reaching the point of giving up when faced with any difficulty. In this regard, we now go on to confirm whether the core category can in fact logically group all of its values (involvement, indifference and neglect) by means of a single dimension. For this purpose, we split the two end-terms and negated each of them to come up with the four terms that would give substance to the semiotic square. Figure 3 shows the network of relations in which the semantic microuniverse is arranged represented by this category, recognizing the positions of virtual meaning defined by the network by means of the relations of contrariness (A-B; A'-B'), contradiction (A-B'; B-A') and the ability to be complementary (A'-A; B'-B).

According to the earlier elementary relations of meaning, the logically possible values of the complete systematic typology²⁶ will be: 1- workers who become involved in their jobs (A), i.e. who invest greater effort when faced with difficulties; 2- those who do not neglect their efforts (A'), who do not give up when faced with any obstacle; 3- those who do not become involved (B'), or do not invest greater effort when face with frustration; and 4- those who neglect (B), in the sense of giving up when faced with any problem.

From a logical perspective, these are the possibilities created by the results of the semiotic square over the primitive core category end-terms. However, in

order to adapt it to the original profiles of the preliminary proposal, the four possible solutions must be simplified to three. We therefore accept a partial correspondence between the sub-contrary terms (A'-B') and reduce the terms 'not involvement' and 'not neglect' to one, corresponding to the value of indifference. This means that indifference is defined as the absence of involvement and absence of neglect at the same time (Figure 3), i.e. not investing great effort but without neglecting tasks, which is consistent with the description pointed out by the author in the previous section.

Figure 3: Qualitative burnout typology according to the 'dedication' classification



When using the intersection between the negations of the primitive end-terms as the intermediate position for locating the indifference characteristic, the semantic axis of dedication appears as a dimension that allows the formal articulation of all the values of the core category, which then becomes the new classification criterion for the typology, now systematized through a system of relations.

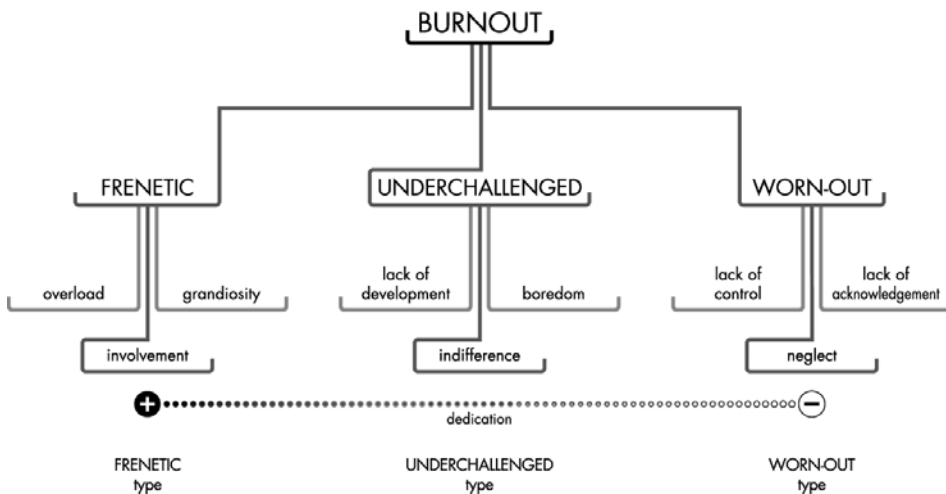
By means of the earlier semantic analysis, we can appreciate the theoretical core underlying the classification of the preliminary typology, over which the sets of meaning devised by the author are constructed. This discovery will enable us to propose very brief definitions of the initially-proposed clinical profiles. These definitions will be based on the attitudes subjects take compared to the feelings of insignificance burnout arouses, according to the degree of dedication, as a way of coping with work-related problems and frustrations.

The resulting definitions of this entire process are: a) frenetic type, copes with work-related difficulties with greater involvement in tasks and invests increasing effort; b) underchallenged type, copes with work superficially through indifference and detachment, without too much involvement although without neglect; c) worn-out type, copes with work-related difficulties by neglecting responsibilities, in the sense of lack of involvement in work to the point of giving up when face with any difficulty.

Discussion

The model described to this point allows differences to be established between those affected by burnout syndrome. The degree of dedication to work dimension becomes the classification criterion to which the remaining properties are connected. This facilitates the recognition of the three clinical profiles (Figure 4 and Table 2).

Figure 4: Structure of the systematized typology



A recent study²⁷ expressed the relation between work overload and psychological distress, emotional fatigue and depersonalization. According to the results of the study, the difficulties in balancing work and family demands are a significant source of stress, which is congruent with our definition of overload. This study also highlights participating workers as having extraordinary levels of personal performance, with the aim of keeping a level of work satisfaction according to an internalized ideal model. Consequently, frenetic type grandiosity

could be associated with a professional identity based on great expectations (perhaps also within a work organization with strong demands), which would compel workers to greater "acceleration". This acceleration or higher involvement could be related to the "meaning in the workplace" of Borritz et al.²⁸, which consistently predicts burnout syndrome. It can be said that "in order to burn out, one first has to be alight", or in other words, the most committed subjects have a higher likelihood of developing the condition, a process that begins when work ceases to have meaning⁵.

Lack of development could be related to dissatisfaction with work, proposed as a cause of burnout in the model by Janssen et al.²⁹. Along the same lines, the study by Borritz et al.²⁸ concludes that low perception of opportunities for personal development in a job is a predictor for burnout in three years. Another study³⁰ made the observation that thinking there could be other jobs that better acknowledged one's capacity was related to the causes of the syndrome and with burnout itself. The same study expressed that lack of gratification and monotony in tasks was associated with both. In this regard, boredom and apathy have been related to the absence of personal and professional development, and it is thought that job rotation could diminish this³¹. The syndrome development model proposed by Moreno et al.³², confirmed in structure by Montero-Marin et al.³³, considers monotony, detachment and low identification with work as cases of burnout. In both the procedural model by Moreno et al.³² and the study by Dickinson and Wright³¹, indifference at work appears as detachment as a way of performing tasks superficially.

Desperation caused by low predictability could correlate with burnout levels²⁸. Lack of control could also be associated with situations of low authority in decision-making, which has been related to emotional exhaustion³⁴. In this respect, attributions with external locus of control have been related to high levels of emotional fatigue and depersonalization³⁵. Lack of acknowledgement appears to be related to low satisfaction with work, a feeling that may influence development of the syndrome³⁶. The latter work expresses how job conditions, such as low pay or large administrative workloads, diminish job satisfaction. With regard to job neglect, burnout is a predictor for illness-related absences from work³⁷. Job satisfaction levels appear to be related to stress, burnout and abandoning careers³⁸. Apathy at work could be related to ineffectiveness³⁹, and inversely to drive, participation and absorption, which characterize the opposite of burnout⁴⁰.

However, this interpretive framework is not without limitations. A number of the author's descriptions can be found which do not exactly fit the configuration of

characteristics in the proposed model. For example, feelings of desperation caused by lack of control can be gauged from an isolated quote taken from a patient (Susan, thirty, high school teacher, three years' experience) classified by the author as frenetic.

"I really feel like I'm at the edge... I'm working unbelievably hard and I'm not sure It's getting better...I'm not sure how much longer I can do this."

(Farber, 2000b, p. 683)

Farber also comments on a frenetic teacher (Paula, twenty-six, primary teacher, two years' experience), who chose to give up her job when she felt she could not reach her objectives.

"She felt she could not control the students in her class, could not round up enough books for the slower students, and could not find enough time or energy to make use of the support that some colleagues were offering."

(Farber, 1991b, p. 119)

It is possible to find isolated descriptions of the underchallenged type in which the author points out certain feelings of lack of recognition.

"Here the stresses of work are not great but neither are the rewards -particularly those of a psychological nature."

(Farber, 1990, p. 42)

Or the case of teachers classified by Farber as underchallenged (for example the case of Jill, thirty-eight, primary school teacher, seven years' experience), who chose to change job in search of greater remuneration for their intelligence and ability.

"... this is the group who leave not to escape from too much stress but to find greater sources of stimulation -and often greater remuneration for their intelligence and ability."

(Farber, 1991b, p. 122)

What is certain is that the author explicitly acknowledges these inconsistencies and points out that besides the described types, there are profiles that defy classification because they are a cumulus of the other three, because

the set of characteristics do not coincide with any of the proposed types or even because he came across professionals that oscillated between the three categories⁸. Likewise, the author of the preliminary classification gives cause (although not explicitly and with the limitation of not being able to integrate the profile underchallenged) to understand the typology proposal as evolving over time. For example, with reference to the worn-out type, he says,

"It is possible that those teachers who now appear burned out were once the most dedicated teachers in their schools."

(Farber, 1991a, p. 89)

This new element of analysis raises the possibility of interpreting the typology from a longitudinal perspective, understanding burnout as a process involving diminishing dedication to work, which ends in neglect and breaking of the commitment. This proposal agrees with the position taken by Schaufeli, Salanova et al.⁴⁰ regarding engagement being the opposite of burnout. Development of the syndrome may be seen as a gradual process of commitment erosion. The demands/resources model by Schaufeli and Bakker⁴¹, revised and expanded by Lorente et al.⁴², expresses the role of quantitative overload as a cause for exhaustion and, ultimately, of dedication. The progressive diminishing of involvement in work could reduce gratification or professional recognition, and undermine feelings of self-efficacy, ending with the neglect of responsibilities that is characteristic of the worn-out type. This is in line with Bandura's theory^{43,44} according to which self-efficacy is a predictor of persistence or abandonment in the face of obstacles and difficulties.

Conclusions

Understanding the development of burnout syndrome in this way, as a succession of stages characterized by the progressive diminishing of dedication to work, could serve, not only for the establishment of specific therapies according to the presented profile, but also to clarify the dimensions of the proposed factors when it comes to expanding the study of burnout towards the opposite, positive aspects of the syndrome (drive, participation and absorption), the source of so much controversy⁴⁵.

Studies reviewing the efficacy of treatment and prevention interventions in workers with burnout are not too optimistic⁴⁶⁻⁴⁸. Limited evidence is available for a small reduction in stress levels from person-directed, person-work interface, and

organizational interventions among health care workers. It is probable that encouraging the positive side of the burnout model we have proposed could be of great interest in the prevention of the syndrome. Person and organizational interventions aimed to improve drive, participation and absorption could be more effective than traditional cognitive therapy-based programs, because they focus on the core concept of burnout. Nevertheless, these questions would have to be resolved through future empirical research, given that they are beyond the scope of this work.

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Chapter 3

Validation of a newer definition of burnout*

*-What's that? Have you lost your hope? At your age?
-It is not a matter of age, but a matter of feeling young or old.
And when someone achieves all that good things that he had so much desired, but making too much efforts and too late, he realizes that endless little annoying difficulties go with him, and he finds himself covered in the thick coat of dust called reality that he, in his fantasy, hadn't expected and which annoys him more and more...*

(Thomas Mann, Los Buddenbrook, 1901)

* Montero-Marin J, Garcia-Campayo J: A newer and broader definition of burnout: Validation of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36). *BMC Public Health* 2010, 10:302.

Abstract

Background

Burnout syndrome has been clinically characterised by a series of three subtypes: 'frenetic', 'underchallenged' and 'worn-out', with reference to coping strategies for stress and frustration at work with different degrees of dedication. The aims of the study are to present an operating definition of these subtypes in order to assess their reliability and convergent validity with respect to a standard burnout criterion and to examine differences with regard to sex and the temporary nature of work contracts.

Method

An exploratory factor analysis was performed by the main component method on a range of items devised by experts. The sample was composed of 409 employees of the University of Zaragoza, Spain. The reliability of the scales was assessed with Cronbach's α , convergent validity in relation to the Maslach Burnout Inventory with Pearson's r , and differences with Student's t -test and the Mann-Whitney U test.

Results

The factorial validity and reliability of the scales were good. The subtypes presented relations of differing degrees with the criterion dimensions, which were greater when dedication to work was lower. The frenetic profile presented fewer relations with the criterion dimensions while the worn-out profile presented relations of the greatest magnitude. Sex was not influential in establishing differences. However, the temporary nature of work contracts was found to have an effect: temporary employees exhibited higher scores in the frenetic profile ($p < 0.001$), while permanent employees did so in the underchallenged ($p = 0.018$) and worn-out ($p < 0.001$) profiles.

Conclusions

The classical Maslach description of burnout does not include the frenetic profile; therefore, these patients are not recognised. The developed questionnaire may be a useful tool for the design and appraisal of specific preventive and treatment approaches based on the type of burnout experienced.

Background

Burnout syndrome has been described as a prolonged response to chronic emotional and interpersonal stressors on the job, determined by the dimensions of exhaustion, cynicism, and inefficacy¹. Exhaustion is described as the feeling of not being able to offer any more of oneself at an emotional level; cynicism as a distant attitude towards work, the people being served by it and colleagues; and inefficacy as the feeling of not performing tasks adequately and of being incompetent at work. In general terms, burnout is the body's response to the failure of the coping strategies that individuals typically utilise to manage stressors at work².

Despite the various definitions of the syndrome presented in the literature, burnout has traditionally been described as a relatively uniform entity in all individuals, with more or less consistent aetiology and symptoms³. Nevertheless, clinical and therapeutic experience refutes this hypothesis, resulting in the need to characterise the different types of burnout in order to adjust lines of therapeutic action for more effectiveness. Farber⁴ has proposed a preliminary typology with three syndrome profiles ('frenetic', 'underchallenged', and 'worn-out'); this typology may allow for the development of more specific treatments³. Based on Farber's clinical and phenomenological work³⁻⁹, our group¹⁰ has theoretically systematised this typology, specifying the properties on which the profiles are based and establishing a classification criterion that coherently expresses the proposal in its entirety.

The frenetic type¹⁰ comprises a category of highly applied and committed individuals who are characterised by the investment of a substantial amount of time and effort in their dedication to work. The characteristics of individuals with this clinical profile are a high degree of involvement, in the form of increasingly greater efforts in the face of difficulties; grandiosity, in the sense of great ambition and need for achievements; and overload, as feeling of being overwhelmed caused by the neglect of their own needs (health and personal life) in an attempt to satisfy work requirements. The underchallenged type¹⁰ is described as comprising individuals who have no interest in their work and perform tasks in a superficial manner because they lack challenges, motivation or desire for engagement. The characteristics of this profile are indifference, as a means of working superficially and without interest; lack of development, owing to the dissatisfaction of one's talents remaining unacknowledged until other employment options are contemplated; and boredom, in the sense of experiencing work as a monotonous and routine event. The worn-out type¹⁰

comprises individuals whose level of involvement in their work is reduced to the point where they disregard the responsibilities of their position. The characteristics of this profile are neglect, as a lack of involvement in the work tasks to the point of giving up in the face of difficulty; lack of acknowledgement, as the feeling of not having their efforts and dedication recognised; and lack of control, as the desperation caused by their lack of control over the results of their actions at work.

The classification criterion (dimension on which differentiation is based) is the degree of dedication¹⁰, specifically reflected in the values of involvement, indifference and neglect, which are the methods of coping with stress and frustration at work. However, affected individuals may defy this classification⁴ by fluctuating between the three profiles⁸ or by gradually evolving from one profile into another over time as their dedication diminishes^{5,10}.

In a previous exploratory study carried out by our group¹¹, associations between burnout subtype characteristics and variables such as dissatisfaction with job and organisation, severity of burnout (measured with an instrument based on the definition of Maslach and Jackson¹², and the physical, psychological and social consequences of burnout (according to Moreno et al.'s model¹³) were found. Moreno et al.'s model, based on the definition proposed by Schwab et al.¹⁴, has been replicated by our group with consistent results¹⁵.

Within this framework, the main aim of the current study was to construct a questionnaire that would allow the clinical profiles reflected in the previously described conceptual structure to be operationalised. We also evaluated the internal consistency of the constituent scales and subscales as well as their convergent validity with regard to a standard burnout criterion. Lastly, we examined the potential differences caused by sex and the temporary nature of work contracts.

Methods

We used the correlational method with a cross-sectional design. The measurements were obtained by means of the self-assessment technique using a questionnaire. All participants provided their informed consent.

Participants

The study population consisted of the employees of the University of Zaragoza who were employed in January 2008 (N = 5,493). The sample size was

calculated for a 95% confidence interval with a 3.5% error, assuming the prevalence of burnout to be 18%, according to previous studies on the general population^{2,16}. The calculation yielded a result of 427 subjects. The response rate expected in web-mail surveys is about 27%^{17,18}. Therefore, 1,600 subjects were chosen by means of random stratified sampling with proportional allocation depending on occupation from an alphabetical list of the entire workforce. The final sample was composed of 409 participants, with a response rate of 25.6%. The response rate was distributed as follows: 19.3% teaching and research staff, 36.5% administration and service personnel, 25.8% fellows. The number of participants exceeded the construct validity evaluation criterion¹⁹, resulting in a sample that was psychometrically adequate for the study.

The mean age of participants was 40.51 years (SD = 9.09); 44.4% were males. In terms of job position, 42.9% of the subjects were teaching and research staff members, 46.9% were administration and service personnel and 10.2% were fellows. Of the sample, 21.9% were not in a stable relationship, and 49.9% had children. In terms of length of employment, 18.5% had been working at the university for less than 4 years, with 44.6% working between 4 and 16 years and 36.9% for more than 16 years. The income distribution was as follows: 31.1% had a monthly income of less than €1,200, with 42.1% earning €1,200-2,000 per month and 26.8% earning more than €2,000. Nearly 67% of the participants did not take sick leave in the previous year. Of the subjects, 63.6% were permanent employees and 93.8% worked full time.

Tools

Subjects were first asked questions concerning general socio-demographic and work-related aspects for the purpose of providing a description of the participating sample and carrying out the previously mentioned contrasts. They were then presented with a self-administered questionnaire that consisted of 72 items, 8 for each of the 9 characteristics included in the previously described model. The items were developed by a group of experts who attempted to include the main characteristics of the reference domain by means of consensus¹⁰. The wording of the items was guided by a table of content specifications, which enabled the fit, conceptual validity and representative nature of the proposal to be assured. This initial battery of instruments was overdimensioned in order to select the items with the best psychometric properties based on the Classical Theory of Tests²⁰⁻²². Subjects indicated their degree of agreement with each of the statements presented using a Likert-type scale with 7 response options, scored from 1 ('totally disagree') to 7 ('totally agree').

To conclude, subjects were presented with the 'Maslach Burnout Inventory-General Survey' (MBI-GS)²³ in the validated Spanish language version adapted by Bresó, Salanova and Schaufeli²⁴. This adaptation (Annexes 7 and 8) consists of 15 items grouped into three dimensions. Responses were arranged in a Likert-type scale with 7 options, scored from 0 ('never') to 6 ('always'). The exhaustion dimension (comprising 5 items such as "I feel emotionally drained from my work") achieved $\alpha = 0.92$ in our study. The cynicism dimension (comprising 4 items such as "I've become more callous toward people since I took this job") obtained $\alpha = 0.92$. The efficacy dimension (consisting of 5 items such as "I deal very effectively with the problems of my work") achieved $\alpha = 0.82$.

Data analysis

From the proposed items, we selected those with the best discrimination coefficient in their respective domain²⁰⁻²². The factor structure of the scales was tested by means of Exploratory Factor Analysis (EFA), following the main component method with varimax orthogonal rotation. In order to confirm the legitimacy of the analysis, we confirmed that the KMO index had a value > 0.70 and that Bartlett's sphericity test provided a significant result. The number of components was decided using Kaiser's criterion²⁵, which requires eigenvalues greater than one, in addition to Cattell's scree test²⁶ on the sedimentation graph. In addition, the criterion of factorial weight > 0.5 was used to determine which items were allocated to a specific factor¹⁹. The percentage variance explained in each item by its pertinence factor was calculated with h^2 communality values, the reliability of scales and subscales with Cronbach's α and relation to the criterion with Pearson's r . Contrast tests were calculated with Student's t-test for independent measurements or through z values associated with the Mann-Whitney U test (depending on the normality hypothesis). All of the tests were bilateral and were performed with a significance level of $\alpha < 0.05$. Data analysis was performed with the SPSS version 15 statistics software package.

Procedure

An e-mail explaining the aims of the research was sent to the selected subjects. The e-mail contained a link to an online questionnaire and two access passwords for subjects to complete the questionnaire during the month of February 2008. As a token of appreciation for their collaboration in the study, participants received a report with their score from the questionnaire and its interpretation. This project was approved by the Ethics Committee of Aragon.

Results

The following paragraphs present the results obtained from the selected items according to the method previously described based on the Classical Theory of Tests (Annexes 1 and 2).

Exploratory Factor Analysis (EFA)

The distribution of items on the frenetic scale allowed the use of the EFA (KMO = 0.83; Bartlett $p < 0.001$). This analysis provided an unforced solution for three factors. The first of these (ambition) presented an eigenvalue of 4.37 (36.44% variance); the second (overload) had an eigenvalue of 2.41 (20.09%); and the third (involvement) exhibited an eigenvalue of 1.67 (13.94%). The three factors exceeded Kaiser's criterion and the scree test allowed the solution to be accepted as adequate. In total, 70.47% of the variance was explained.

The distribution of items on the unchallenged scale permitted EFA (KMO = 0.92; Bartlett $p < 0.001$), which provided an unforced solution for three factors. The first of these (indifference) presented an eigenvalue of 6.91 (57.57%); the second (lack of development) had an eigenvalue of 1.40 (11.66%); and the third (boredom) exhibited an eigenvalue of 1.01 (8.34%). The three factors exceeded Kaiser's criterion, and the sedimentation graph slope became gentle for these three factors. The solution explained 77.57% of the total variance.

The distribution of items on the worn-out scale made EFA possible (KMO = 0.86; Bartlett $p < 0.001$). EFA provided an unforced solution for three factors. The first of these (lack of acknowledgement) presented an eigenvalue of 4.89 (40.76% variance); the second (neglect) had an eigenvalue of 2.44 (20.34%); and the third (lack of control) exhibited an eigenvalue of 1.23 (10.21%). The three factors exceeded Kaiser's criterion, and the scree test offered a structure for the three factors. This model explained 71.31% of the total variance.

Tables 3, 4 and 5 show the rotated factor solution and descriptive statistics of the items belonging to the three scales (see Appendices 1 and 2 for item content in Spanish language version and English language version). The responses to the items of the involvement and neglect factors were more extreme and, in particular, less variable than the others. The discrimination coefficients show raised positive values in the belonging factor, while they were lower, albeit adequate, in the total scale of the corresponding profile. All communality values were adequate.

Table 3: Factor weighting and descriptive statistics of the frenetic subtype items

Items	Factor weighting			M	SD	discr F / S	h ²
	Frenetic	Ambition	Overload				
No. 1	0.89	0.13	0.12	3.72	1.42	0.81 / 0.60	0.82
No. 4	0.81	0.17	0.16	3.91	1.38	0.73 / 0.60	0.72
No. 7	0.83	0.16	0.16	4.01	1.35	0.75 / 0.61	0.74
No. 10	0.84	0.10	0.16	4.00	1.38	0.75 / 0.58	0.75
No. 2	0.10	0.87	0.05	3.79	1.53	0.77 / 0.52	0.77
No. 5	0.18	0.83	0.04	3.18	1.59	0.73 / 0.55	0.73
No. 8	0.11	0.85	0.04	3.37	1.55	0.73 / 0.51	0.74
No. 11	0.13	0.77	0.03	3.79	1.44	0.63 / 0.46	0.61
No. 3	0.15	0.10	0.84	5.08	0.99	0.70 / 0.45	0.74
No. 6	0.10	0.17	0.70	4.96	1.13	0.53 / 0.39	0.53
No. 9	0.17	0.01	0.81	4.95	0.95	0.66 / 0.39	0.69
No. 12	0.13	-0.12	0.77	4.68	1.14	0.59 / 0.30	0.63

Extraction: main components. Rotation: varimax. M = average. SD = standar deviation. discr F/S = discrimination factor/scale coefficient. h²=comunalities.

Table 4: Factor weighting and descriptive statistics of the underchallenged subtype items

Items	Factor weighting			M	SD	discr F / S	h ²
	Underchall.	Indifference	L. Develop.				
No. 13	0.80	0.27	0.24	2.65	1.46	0.79 / 0.70	0.77
No. 16	0.79	0.22	0.30	2.59	1.39	0.79 / 0.70	0.76
No. 19	0.73	0.38	0.30	2.90	1.55	0.76 / 0.77	0.77
No. 22	0.84	0.07	0.14	2.17	1.14	0.67 / 0.54	0.73
No. 14	0.14	0.86	0.22	3.72	1.66	0.79 / 0.66	0.82
No. 17	0.26	0.74	0.24	3.32	1.46	0.70 / 0.67	0.67
No. 20	0.21	0.86	0.20	4.03	1.61	0.80 / 0.68	0.82
No. 23	0.22	0.71	0.33	3.86	1.68	0.69 / 0.68	0.66
No. 15	0.24	0.24	0.87	3.01	1.53	0.85 / 0.73	0.87
No. 18	0.20	0.30	0.84	3.15	1.61	0.79 / 0.71	0.83
No. 21	0.38	0.30	0.75	3.03	1.56	0.82 / 0.78	0.80
No. 24	0.46	0.32	0.62	2.95	1.54	0.78 / 0.82	0.80

Extraction: main components. Rotation: varimax. M = average. SD = standar deviation. discr F/S = discrimination factor/scale coefficient. h²=comunalities.

Table 5: Factor weighting and descriptive statistics of the worn-out subtype items

Items	Factor weighting			M	SD	discr F / S	h ²
	Worn-out	L. Acknow.	Neglect				
No. 25	0.81	0.07	0.15	3.93	1.68	0.67 / 0.57	0.68
No. 28	0.74	0.19	0.25	4.68	1.69	0.67 / 0.65	0.64
No. 31	0.88	0.09	0.20	4.58	1.65	0.83 / 0.68	0.82
No. 34	0.85	0.08	0.28	4.50	1.60	0.81 / 0.71	0.81
No. 26	0.13	0.79	0.02	2.58	1.16	0.66 / 0.38	0.65
No. 29	0.09	0.83	0.22	2.53	1.07	0.74 / 0.49	0.75
No. 32	0.07	0.87	0.04	2.32	0.97	0.76 / 0.38	0.76
No. 35	0.07	0.84	0.08	2.65	1.06	0.72 / 0.39	0.71
No. 27	0.36	0.08	0.75	4.53	1.53	0.70 / 0.63	0.70
No. 30	0.43	-0.05	0.71	4.98	1.37	0.65 / 0.59	0.69
No. 33	0.18	0.32	0.68	3.83	1.50	0.55 / 0.57	0.60
No. 36	0.10	0.07	0.84	4.44	1.43	0.64 / 0.49	0.73

Extraction: main components. Rotation: varimax. M = average. SD = standar deviation. discr F/S = discrimination factor/scale coefficient. h²=comunalities.

Scale and subscale descriptive statistics and reliability

Table 6 shows the descriptive statistics and reliability of the scales and subscales (calculated as the sum of the component items divided among their number). The highest mean (scalar) scores were those of the frenetic profile (Md = 4.12; SD = 0.80), followed by those of worn-out (Md = 3.79; SD = 0.90) and those of the underchallenged profile (Md = 3.12; SD = 1.15). Underchallenged was the profile that showed the greatest variability.

As expected based on the nature of the factor analysis, the α coefficients obtained were good (all of which were > 0.8). Each of the items contributed to raising the reliability of their factor as well as the total scale of their profile, except items 12 and 22, which raised the reliability of their factor but not that of their profile. Nevertheless, elimination of these items resulted in the same value for the general corresponding scales; therefore, they were not rejected.

Convergent validity

Convergence values with the MBI-GS differed for each of the identified burnout types. The frenetic profile presented fewer relations with the criterion dimensions. The relations were moderate for exhaustion ($r = 0.30$; $p < 0.001$),

insignificant for cynicism ($r = -0.05$; $p = 0.352$) and moderately low in a positive sense for efficacy ($r = 0.24$; $p < 0.001$). The underchallenged profile presented relations of the greatest magnitude. The relations were moderate for exhaustion ($r = 0.39$; $p < 0.001$), very high for cynicism ($r = 0.66$; $p < 0.001$) and moderate for efficacy in an inverse sense ($r = -0.38$; $p < 0.001$). The worn-out profile obtained the greatest relations with the criterion. The relations were very high for exhaustion ($r = 0.62$; $p < 0.001$) and cynicism ($r = 0.68$; $p < 0.001$), and moderately high for efficacy in a negative sense ($r = -0.43$; $p < 0.001$). Table 6 shows the descriptive statistics and the correlations between BCSQ-36 and MBI-GS dimensions.

Table 6: Descriptive statistics and correlations between scales and subscales

<i>Scales / Subscales</i>	M (SD)	<i>Fren.</i>	Amb.	Over.	Inv.
<i>Frenetic</i>	4.12 (0.80)	(0.84)			
Ambition	3.91 (1.20)	0.79**	(0.89)		
Overload	3.53 (1.29)	0.74**	0.31**	(0.86)	
Involvement	4.92 (0.84)	0.59**	0.34**	0.12*	(0.80)
Exhaustion	2.39 (1.42)	0.30**	0.08	0.58**	-0.14**
Cynicism	2.07 (1.59)	-0.05	-0.08	0.21**	-0.35**
Efficacy	4.45 (1.01)	0.24**	0.26	0.09	0.45**
		<i>Under.</i>	Ind.	L.Dev.	Bor.
<i>Underchallenged</i>	3.12 (1.15)	(0.92)			
Indifference	2.58 (1.20)	0.85**	(0.88)		
L. Development	3.73 (1.37)	0.85**	0.56**	(0.88)	
Boredom	3.04 (1.40)	0.90**	0.69**	0.64**	(0.92)
Exhaustion	2.39 (1.42)	0.39**	0.40**	0.38**	0.25**
Cynicism	2.07 (1.59)	0.66**	0.65**	0.60**	0.49**
Efficacy	4.45 (1.01)	-0.38**	-0.49**	-0.22**	-0.31**
		<i>Worn.</i>	L.Ack.	Negl.	L.Cont.
<i>Worn-out</i>	3.79 (0.90)	(0.87)			
L. Acknowled.	4.42 (1.42)	0.86**	(0.88)		
Neglect	2.52 (0.90)	0.58**	0.25**	(0.86)	
L. Control	4.44 (1.17)	0.82**	0.57**	0.27**	(0.81)
Exhaustion	2.39 (1.42)	0.62**	0.49**	0.32**	0.59**
Cynicism	2.07 (1.59)	0.68**	0.59**	0.43**	0.53**
Efficacy	4.45 (1.01)	-0.43**	-0.23**	-0.55**	-0.29**

Values in parentheses of the diagonal in each matrix are α coefficients. ** $p < 0.001$. * $p < 0.05$.

Differences owing to sex and the temporality of contracts

Tables 7 and 8 show the descriptive statistics and results of contrast tests for the three profile scales and subscales. No significant differences by sex were found for any of the scales or subscales, but the temporary nature of work contracts was found to be a determinant. Temporary employees exhibited higher scores in the frenetic profile ($p < 0.001$), while permanent employees did so in the underchallenged ($p = 0.018$) and worn-out ($p < 0.001$) profiles.

Table 7: Descriptive statistics depending on sex

	M (n=182)	F (n=227)	
Scales	Average (SD)	Average (SD)	t (p)
Frenetic	4.15 (0.83)	4.09 (0.77)	0.76 (0.445)
Underchallenged	3.25 (1.25)	3.02 (1.06)	1.95 (0.053)
Worn-out	3.79 (0.87)	3.79 (0.92)	0.02 (0.987)
Subscales	Median (Q₁ - Q₃)	Median (Q₁ - Q₃)	z (p)
Ambition	4.00 (3.00 - 5.00)	3.75 (3.00 - 4.50)	-1.60 (0.109)
Overload	3.25 (2.75 - 4.50)	3.25 (2.50 - 4.31)	-0.65 (0.514)
Involvement	4.87 (4.50 - 5.25)	5.00 (4.50 - 5.25)	-1.46 (0.144)
Indifference	2.50 (1.75 - 3.25)	2.50 (1.75 - 3.00)	-1.10 (0.272)
L.Development	3.75 (3.00 - 4.75)	3.50 (3.00 - 4.50)	-1.16 (0.247)
Boredom	3.00 (2.00 - 4.25)	3.00 (2.00 - 3.75)	-1.90 (0.057)
L.Acknowledgement	4.50 (3.50 - 5.50)	4.25 (3.25 - 5.50)	-0.52 (0.603)
Neglect	2.50 (1.81 - 3.00)	2.75 (2.00 - 3.00)	-0.05 (0.960)
L.Control	4.37 (3.50 - 5.00)	4.50 (3.50 - 5.25)	-0.85 (0.392)

M = male; F = female

Discussion

This study is the first with the aim of producing an operational concept of professional burnout that enables classification into clinical subgroups. This concept was a need felt by clinicians because not all individuals with burnout present the same characteristics and prognosis. Analysis of the selected items and resulting scales for each profile has confirmed the factor validity and high reliability of the model. All of the operational definitions were faithful to the meanings contained in the Farber's theory.

Table 8: Descriptive statistics depending on nature of work contracts

	P (n=260)	T (n=149)	
Scales	Average (SD)	Average (SD)	t (p)
Frenetic	3.99 (0.74)	4.34 (0.84)	-4.21 (0.001)
Underchallenged	3.22 (1.12)	2.94 (1.18)	2.38 (0.018)
Worn-out	3.92 (0.86)	3.56 (0.93)	3.97 (0.001)
Subscales	Median (Q₁ - Q₃)	Median (Q₁ - Q₃)	z (p)
Ambition	3.50 (3.00 - 4.50)	4.25 (3.25 - 5.00)	-4.20 (0.001)
Overload	3.25 (2.75 - 4.25)	3.50 (2.75 - 4.62)	-1.45 (0.147)
Involvement	4.75 (4.25 - 5.25)	5.00 (4.75 - 5.75)	-4.04 (0.001)
Indifference	2.50 (1.75 - 3.25)	2.00 (1.50 - 3.00)	-2.97 (0.003)
L.Development	3.75 (3.00 - 4.62)	3.25 (2.50 - 4.62)	-1.76 (0.077)
Boredom	3.00 (2.25 - 4.00)	2.75 (1.75 - 3.75)	-3.01 (0.003)
L.Acknowledgement	4.50 (3.50 - 5.50)	4.00 (3.00 - 5.50)	-2.77 (0.006)
Neglect	3.00 (2.25 - 3.00)	2.25 (1.50 - 3.00)	-5.12 (0.001)
L.Control	4.50 (3.75 - 5.25)	4.25 (3.50 - 5.12)	-1.81 (0.071)

P = permanent; T = temporary

The frenetic scale was composed of the involvement, ambition and overload dimensions. The high scores and low variability obtained in the items belonging to the involvement factor suggest that these responses may be influenced by social desirability, an aspect that should be considered when establishing anchoring points on a scalar level in later studies. The frenetic profile generally presented significant relations with exhaustion and with efficacy in a positive sense. These subjects are affected by burnout, given that this is what they express in therapy sessions when manifesting their psychological distress^{3,10}. However, judging from their characteristics and relations, they seem closer to the concept of workaholics²⁷⁻²⁹. Nevertheless, this addiction is associated with burnout³⁰, and may be one of the possible causes of it^{31,32} due to exhaustion of the individual's energy resources. Highly committed subjects typically show a great likelihood of developing burnout^{2,5}, as their commitment and addiction are related by means of the absorption factor³⁰, making the employee a captive of his or her own activity³³⁻³⁵. Consequently, by learning to keep a certain distance from work and prioritising self-care, individuals could avoid excessive involvement and prevent burnout³⁶.

The underchallenged profile comprised the indifference, lack of development and boredom dimensions. This last factor, despite fulfilling Kaiser's criteria, presented a low percentage of explained variance, likely due to its high association with the other two factors. However, this factor should be included in the model because its content clearly differs from that of the other two factors. We observed relations between the underchallenged profile and exhaustion, lack of efficacy and, particularly, cynicism. Underchallenged employees have lost interest in the tasks involved in their work, have become cynical, and consequently seem to be affected by preliminary stages of burnout, such as dissatisfaction, limited variety and absence of feedback in tasks^{15,37}. In other works, it has been observed that individuals' perception that other jobs would better acknowledged their talents, lack of interest or gratification, and monotony could precede burnout^{11,13-15}. Specifically, the perception of minimum likelihood of personal development in a job predicts burnout in three years³⁸. Efforts aimed at increasing employees' personal and career development and reducing boredom and apathy appear to lower levels of stress and exhaustion³⁹.

The worn-out profile is characterised by neglect, lack of control and lack of acknowledgement. The low scores and lower variability for items belonging to the neglect factor suggest that social desirability may have influenced subjects' responses. The worn-out type presents significant relations with exhaustion, cynicism and lack of efficacy, and therefore appears to be the profile that best fits the definition of burnout provided by Maslach, Schaufeli and Leiter¹. Their neglect and/or apathy are associated with a lack of efficacy and may be inversely related to drive, participation and absorption⁴⁰, aspects considered diametrically opposed to burnout⁴¹. The desperation caused by absence of control over results has been related to high levels of stress, exhaustion, emotional fatigue and depersonalization^{38,39,42,43}, which is in line with our results. The current study also shows that the perception of lack of acknowledgement is strongly associated with cynicism. Moreover, this appears to produce dissatisfaction and burnout in general⁴⁴. Greater acknowledgement seems to have a positive influence on the work climate of an organisation, reducing exhaustion and raising quality of life at work^{44,45}.

Structural conditions, such as the temporary nature of work contracts, accentuate the development of some types of burnout. According to our results, temporary employees exhibit significantly higher scores for the 'frenetic' subtype, associated with excessive dedication. Permanent employees displayed significantly higher scores for the 'underchallenged' and 'worn-out' subtypes, characterised by lower dedication. Significant differences were also found in the

involvement, ambition, indifference, boredom, lack of acknowledgement and neglect dimensions, with the first two being higher in temporary workers, and the remaining dimensions higher in permanent employees. The structural condition of the temporary nature of work contracts appears to be associated with the type of burnout experienced, perhaps owing to differential involvement in work tasks. On the contrary, there were no significant differences by gender.

Although the characteristics of the subtypes may comprise determining factors for burnout syndrome, not all profiles fit the definition of Maslach, Schaufeli and Leiter¹ in the same way. These results can be explained if we interpret the burnout subtypes as different stages in the development of the syndrome, as proposed by Montero-Marín et al.¹⁰. The development of burnout syndrome is arranged longitudinally by degree of dedication at work, which progresses from more to less (from enthusiasm to apathy)^{5,10,46,47}. Therefore, burnout appears to develop at a time of excessive involvement and commitment, typical of the frenetic profile^{2,5,10,38}. Given that it is not easy to maintain this level of activity without becoming exhausted or affected³¹, workers will adopt a certain distancing to protect themselves, behaving with indifference and cynicism^{48,49}. While alleviating excess activity owing to excessive involvement, this distancing produces the type of frustration and stress suffered by the underchallenged profile⁵⁰. Distancing also erodes the perception of efficacy in the long run by leading to passive coping strategies, such as neglect of responsibilities and emotional venting, which are typical of the worn-out profile⁵¹⁻⁵⁵.

Subtypes are affected by different sources of stress and discontent at work, depending on the level of dedication with which they cope with obstacles and difficulties. Consequently, in order to efficiently adapt treatment strategies for burnout syndrome, we must specifically consider the burnout subtype experienced in each case. From a clinical perspective, exclusive consideration for the most recent manifestations of the syndrome, as performed in current evaluation standards, are insufficient. In order to overcome this limitation, it is necessary to have a more extensive definition for burnout syndrome that takes into account the level of involvement with which subjects cope with their work as part of the syndrome development process.

This study has several limitations. First, a low response rate was obtained. However, the rate is quite similar to those found in previous studies using internet surveys^{17,18}. This low rate could produce a bias in assessing point prevalence values, but does not affect the assessment of relationship patterns among different variables¹⁷. In addition, differences in response rates based on occupational level could decrease the representativeness of the sample; however,

all of the various jobs showed the expected response rate values^{17,18}. Another limitation is the sample selection, which was exclusively composed of workers from the University of Zaragoza. However, the sample was big and multi-occupational, as individuals in several jobs were included, improving the external validity of the study. Finally, this was exclusively a psychometric study; therefore, the predictive validity of the model has not yet been demonstrated. One of the main strengths of this study is that data quality was controlled by eliminating possible errors in the questionnaire transcription process through the use of purpose-designed software.

Conclusions

The results of this study provide empirical support for the factor validity and internal consistency of the scales comprising the three clinical profiles. The Burnout Clinical Subtype Questionnaire is interesting in that it allows measurements for the three different burnout subtypes to be established. Moreover, it does so in a brief and operational manner, which makes it quite useful for the design and evaluation of specific treatment strategies for burnout syndrome.

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Chapter 4

Risk factors associated with different burnout types*

“During his whole life, he had always acted as if he was an action man; however, insofar as such idea of his person was justified, it was due to a certain awareness of superiority, wasn't it? In those years, he had achieved significant successes; now then, they were the mere result of the enthusiasm, the vitality and the encouragement brought by his thoughts, weren't they? And now that he felt defeated, that his strength was exhausted, it was also the result of his pitiful state of mind, of that inner fight so irritating and unnatural, wasn't it?”

(Thomas Mann, *Los Buddenbrook*, 1901)

* Montero-Marín J, et al.: Sociodemographic and occupational risk factors associated with the development of different burnout types: the cross-sectional university of Zaragoza study. *BMC Psychiatry* 2011, 11:49.

Abstract

Background

Three different burnout types have been described: The 'frenetic' type describes involved and ambitious subjects who sacrifice their health and personal lives for their jobs; the 'underchallenged' type describes indifferent and bored workers who fail to find personal development in their jobs and the 'worn-out' in type describes neglectful subjects who feel they have little control over results and whose efforts go unacknowledged. The study aimed to describe the possible associations between burnout types and general sociodemographic and occupational characteristics.

Methods

A cross-sectional study was carried out on a multi-occupational sample of randomly selected university employees ($n = 409$). The presence of burnout types was assessed by means of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36), and the degree of association between variables was assessed using an adjusted odds ratio (OR) obtained from multivariate logistic regression models.

Results

Individuals working more than 40 hours per week presented with the greatest risk for frenetic burnout compared to those working fewer than 35 hours (adjusted OR = 5.69; 95% CI = 2.52-12.82; $p < 0.001$). Administration and service personnel presented the greatest risk of underchallenged burnout compared to teaching and research staff (adjusted OR = 2.85; 95% CI = 1.16-7.01; $p = 0.023$). Employees with more than sixteen years of service in the organisation presented the greatest risk of worn-out burnout compared to those with less than four years of service (adjusted OR = 4.56; 95% CI = 1.47-14.16; $p = 0.009$).

Conclusions

This study is the first to our knowledge that suggests the existence of associations between the different burnout subtypes (classified according to the degree of dedication to work) and the different sociodemographic and occupational characteristics that are congruent with the definition of each of the subtypes. These results are consistent with the clinical profile definitions of burnout syndrome. In addition, they assist the recognition of distinct profiles and reinforce the idea of differential characterisation of the syndrome for more effective treatment.

Background

Burnout syndrome has become an increasingly commonplace subject in the scientific literature. In the span of thirty-five years, since the appearance of the first clinical descriptions of the syndrome, we have been able to observe a considerable increase in the number of studies dealing with burnout. The growing interest of researchers in this psychosocial disorder is easy to understand. In a relatively short time, Western societies have experienced a series of economic, technological and social transformations that have impacted working conditions, often creating a greater vulnerability to stress.

Although different approaches have been considered regarding burnout syndrome, most authors accept that it is a uniform phenomenon, with specific aetiology and symptoms¹. The most accepted definition is that described by Maslach, Schaufeli and Leiter². According to their definition, burnout is the result of a prolonged exposure to chronic personal and interpersonal stressors on the job as determined by three dimensions: exhaustion, cynicism and professional inefficacy. 'Exhaustion' is described as the feeling of not being able to offer any more of oneself at an emotional level; 'cynicism' refers to a distant attitude towards work, the people being served by it and among colleagues; and 'inefficacy' describes the feeling of not performing tasks adequately and of being incompetent at work. However, burnout syndrome has been related historically to the presence of guilt feelings in the individual suffering from it³⁻⁵. According to Gil-Monte, this variable plays a major role in the development and chronification of the syndrome by means of a positive feedback mechanism in some of those affected^{6,7}.

Nevertheless, clinical experience suggests that the disorder manifests in several different ways, leading Farber to propose a preliminary classification system based on three different burnout types^{1,8-13}. In this author's opinion, burnout is an experience during which individuals are aware of a considerable discrepancy between their contributions and rewards and between their invested efforts and the results obtained at work. This definition is the result of a phenomenological analysis of the syndrome, and it can be placed within the framework of the social exchange theory, according to which the establishment of reciprocal social relations is essential for the health and well-being of individuals. In this theory, the underlying psychological mechanism for the development of burnout is the feeling of lack of reciprocity in social exchange relations^{11,14}. According to Farber^{1,8-13}, the way an individual copes with these feelings of frustration can lead to the development of one type of burnout or another.

Consequently, subjects with 'frenetic' burnout work increasingly harder to the point of exhaustion in search of success that is equal to the level of stress caused by their efforts. Workers with 'underchallenged' burnout are presented with insufficient motivation and, given their talents and/or skills, have to cope with monotonous and unstimulating conditions that fail to provide the necessary satisfaction. Workers with 'worn-out' burnout are those who give up when faced with stress or lack of gratification. This proposal for the classification of the syndrome was conceptualised and systematised from documentary analysis of Faber's clinical work¹⁵ and its validity was explored¹⁶ until a consistent and operative definition was reached¹⁷. The classification criterion for this typology is based on the level of dedication at work: high in frenetic subjects (active coping style), intermediate in underchallenged workers and low in worn-out subjects (passive coping style)^{13,15,17}.

Frenetic type burnout refers to a category of subjects who are very involved and ambitious and who overload themselves to fulfil the demands of their jobs. 'Involvement' is the investment of all of necessary efforts until difficulties are overcome; 'ambition' is the great need to obtain major successes and achievements and 'overload' involves risking one's health and neglecting personal lives in the pursuit of good results¹⁵⁻¹⁷. This burnout profile is a category of exhausted but effective workers (at least in the short term), who are close to excessive commitment or even close to becoming workaholics. These people seem to develop the syndrome because they use up their energy resources on disproportionate dedication¹⁵⁻²¹.

The underchallenged type of burnout refers to indifferent and bored subjects who fail to experience personal development in their jobs. 'Indifference' is a lack of concern, interest and enthusiasm in work-related tasks; 'boredom' describes one's experience of work as a monotonous, mechanical and routine experience with little variation in activities and 'lack of development' is the desire by individuals to take on other jobs where they can better develop their skills¹⁵⁻¹⁷. Underchallenged subjects are exhausted but are more typified by their cynicism, owing to their loss of interest and the dissatisfaction they feel for tasks with which they do not identify, all of which are related with burnout^{15-17,20,22-26}.

The worn-out type refers to subjects who present with feelings of a lack of control over the results of their work and a lack of acknowledgement for their efforts, which finally leads them to neglect their responsibilities. 'Lack of control' is the feeling of defencelessness or impotence as result of dealing with situations beyond their control; 'lack of acknowledgement' is the belief that the organisations those individuals work for fail to take their efforts and dedication

into account and 'neglect' refers to the individual's disregard as a common response to most difficulties¹⁵⁻¹⁷. The worn-out profile, characterised by sluggish behaviour, is strongly associated with all of the dimensions of the definition by Maslach, Schaufeli and Leiter². It is, therefore, the profile of exhausted, cynical and rather ineffective workers^{15-17,20,27-30}.

The work by Montero-Marín and García-Campayo shows how structural aspects, such as temporary work contracts, allow differences to be established between the described burnout types¹⁷. Temporary workers are seen to have a more frenetic attitude in general, while permanent employees are seen to have fewer challenges and more wear. To date, the possible associations between the different burnout types and other sociodemographic and occupational variables have not been studied. The purpose of this study is to examine the different general sociodemographic and occupational characteristics associated with burnout syndrome in other studies (such as age, gender, being in a stable relationship, having children, level of education, number of hours worked per week, occupation, length of service in an organisation, monthly income, contract duration and contract type) as elements that may be related to the different subtypes of burnout syndrome, in an attempt to identify the variables with the greatest predictive value for each profile.

The following points were considered specifically as working hypotheses: that a large number of hours worked per week, a factor traditionally associated with the development of burnout probably owing to the exhaustion it triggers³¹⁻³⁴, could have a particularly relevant weight in the frenetic subtype, given the significant degree of involvement, ambition and overload that characterises it; that those occupations involving monotonous and repetitive tasks traditionally associated with burnout as an antecedent factor^{22,23,25} could be specifically related with the development of the underchallenged subtype given the indifference, boredom and lack of personal development experienced; and that the time worked in an organisation, a factor related with the development of the syndrome perhaps owing to the prolonged exposure to a system of contingencies that do not encourage satisfaction or commitment³⁵⁻³⁷, could be more characteristic of the worn-out burnout subtype given the absence of control and acknowledgement, and the neglect felt by individuals in this situation. Shedding light on associations of this type would permit a better characterisation of these profiles and would facilitate the understanding and specific identification of subjects with burnout.

Methods

Study design

The correlation method was used with a cross-sectional design for data collection. However, attention was given to the development of variables over time so that any associations could be considered from a causal perspective³⁸. The measurements were obtained by a self-reported online questionnaire completed by participants who had previously given their informed consent.

Participants

The study population consisted of all employees of the University of Zaragoza working in January 2008 (N = 5,493). The required sample size was calculated so as to be able to make estimates with a 95% confidence level and a 3.5% margin for error, presuming an 18% prevalence of burnout³⁹, resulting in 427 subjects. The response rate expected in web-based surveys, based on past studies, was roughly 27%^{40,41}. Therefore, 1,600 subjects were selected by means of random stratified sampling with proportional allocation depending on occupation (58% teaching and research staff or 'TRS', 33% administration and service personnel or 'ASP', 9% trainees or 'TRA') from an alphabetical list of the entire workforce. The final sample consisted of n = 409 participants. This size exceeded the criterion suggested by Freeman whereby the number of participants must be greater than 10 (k+1), with k being the number of co-variables⁴². The sample size was therefore psychometrically adequate for the study. Sample size calculation and random sampling were performed with Epidat 3.1. software.

Procedure

An e-mail was sent to the selected subjects explaining the aims of the research. This message contained a link to an online questionnaire and two access passwords for subjects to complete the questionnaire during the month of February 2008. All participants received an anonymous report with a correction and explanation of their results. This project was approved by the Ethics Committee of Aragon.

Measurements

Sociodemographic and Occupational Factors

Subjects were first asked to complete a series of specifically prepared questions related to general sociodemographic and occupational characteristics.

The questionnaire collected information on the variables of age, gender, whether or not the subject was in a stable relationship, children ('children' vs. 'no children'), level of education ('secondary or lower', 'university', 'doctorate'), number of hours worked per week, occupation ('TRS', 'ASP', 'TRA'), length of service in years, monthly income, contract duration ('permanent' vs. 'temporary') and contract type ('full-time' vs. 'part-time').

Burnout Types

Subjects were then asked to complete the 'Burnout Clinical Subtype Questionnaire' or BCSQ-36 (Spanish version)¹⁷. This questionnaire (Annexes 1 and 2) consists of 36 items distributed into 3 scales and 9 subscales. The frenetic scale consisted of the involvement (e.g., "I react to difficulties in my work with greater participation"), ambition (e.g., "I have a strong need for important achievements in my work") and overload (e.g., "I overlook my own needs to fulfil work demands") dimensions. The underchallenged scale consisted of the indifference (e.g., "I feel indifferent about my work and have little desire to succeed"), lack of development (e.g., "My work doesn't offer me opportunities to develop my abilities") and boredom (e.g., "I feel bored at work") dimensions. Finally, the worn-out scale consisted of the neglect (e.g., "When things at work don't turn out as well as they should, I stop trying"), lack of acknowledgement (e.g., "I think my dedication to my work is not acknowledged") and lack of control (e.g., "I feel the results of my work are beyond my control") dimensions. Subjects had to indicate the degree of agreement with each of the statements presented according to a Likert-type scale with 7 response options, scored from 1 (totally agree) to 7 (totally disagree). The scores for the scales were calculated as the sum of the scores obtained in their subscales. Results are presented in scalar scores. The internal consistency was: frenetic $\alpha = 0.84$ (involvement $\alpha = 0.80$, ambition $\alpha = 0.89$, overload $\alpha = 0.86$); underchallenged $\alpha = 0.92$ (indifference $\alpha = 0.88$, lack of development $\alpha = 0.88$, boredom $\alpha = 0.86$); worn-out $\alpha = 0.87$ (neglect $\alpha = 0.86$, lack of acknowledgement $\alpha = 0.88$, lack of control $\alpha = 0.81$). The convergence between the BCSQ-36 and MBI-GS questionnaires is adequate, given that the former provides a broader definition that is especially useful from a clinical perspective¹⁷.

Data analysis

The continuous sociodemographic and occupational variables were categorised into groups that were coherent with the original profile characterisations^{1,8-13,15}. The former variables were introduced into the analysis as dummy variables as follows: age (< 35, 35-50, > 50), number of hours worked per week (< 35 hours, 35-40 hours, > 40 hours), length of service in years (< 4 years, 4-16 years, > 16 years), monthly income (under €1,200, €1,200-2,000, over €2,000). A general and by-occupation

descriptive analysis was initially made of the participating subjects' sociodemographic and occupational features, using percentages to summarise the categorical variables and the χ^2 contrast test to assess differences in percentages. Means, standard deviations, medians, interquartile ranges and minimum-maximum values were utilised to describe the distribution of data collected using the BCSQ-36 scales and subscales.

Maslach and Jackson⁴³, followed by Maslach, Jackson and Leiter⁴⁴, considered burnout dimensions to be continuous variables. These variables could be used to express the degree of syndrome severity in three levels, namely low, intermediate and high, as a result of dividing the sample into three groups of equal size (33% of subjects), with each dimension classified according to the terciles. Among other criteria^{45,46}, a number of authors have interpreted these scores from a dichotomous point of view for the purpose of distinguishing those subjects with serious burnout symptoms from other individuals. Accordingly, it was suggested that the high scoring subjects would be those above the third quartile (25% of subjects) for each of the dimensions^{47,48}. This approach was used in this study. The advantage of using this type of dichotomous criterion is that it also allows potential problems arising from small samples to be attenuated for subjects in the considered cases. Therefore, in the absence of previously established cut-off points for the BCSQ-36 with a clinical criterial benchmark, those participants situated above sample percentile 75 (P_{75}) in each of the profiles (questionnaire scale scores) were defined as 'high score' participants, whereas those situated below this level were considered 'low score' participants in the variable 'status'⁴⁷. In the bivariate analysis, the possible association between the presence or absence of burnout types with each of the variables of interest was evaluated by means of a simple logistic regression (LR) model, which provided a raw odds ratio (OR), and its 95% confidence interval (CI) estimation. The statistical significance of the association was assessed using the Wald test.

Factors that gave a statistically significant result in the bivariate analysis ($p < 0.05$) were then included in a multivariate LR model. Estimates were provided for ORs adjusted for the variables included in the multivariate model and their 95% CIs. The statistical significance of adjusted ORs was evaluated using the Wald test. Linear trend p values were also calculated in those variables that had originally been measured continuously and had given significant results in the multivariate model. They were introduced into the model without being stratified. The fit of each multivariate model was evaluated with the Hosmer-Lemeshow χ^2 goodness-of-fit test, and its discriminatory power by means of the area below the ROC curve, taking into account the forecast probabilities and the variable status (high score/low score), with a cut-off point at $p = 0.5$. All of the tests were

bilateral and were performed with a significance level of $\alpha < 0.05$. Data analysis was performed with the SPSS-15 statistical software package.

Table 9: Sociodemographic and occupational characteristics

	TOTAL (n=409)	TRS (n=176)	ASP (n=191)	TRA (n=42)	p*
<i>Age</i>					<0.001
<35 years	29.5%	23.8%	19.8%	97.6%	
35-50 years	57.0%	59.3%	66.8%	2.4%	
>50 years	13.5%	16.9%	13.4%	-	
<i>Sex</i>					0.728
male	44.4%	42.4%	45.2%	48.8%	
<i>Stable Relationship</i>					0.456
no	21.9%	19.2%	23.4%	26.8%	
<i>Children</i>					<0.001
no children	50.1%	47.6%	42.3%	97.4%	
<i>Education</i>					<0.001
secondary	15.5%	0.6%	31.9%	2.5%	
university	52.1%	28.5%	65.4%	90.2%	
doctorate	32.4%	70.9%	2.7%	7.3%	
<i>Hours per week</i>					<0.001
<35 h/wk	40.6%	16.8%	65.9%	22.5%	
35-40 h/wk	26.8%	24.8%	27.9%	30.0%	
>40 h/wk	32.6%	58.4%	6.2%	47.5%	
<i>Length of service</i>					<0.001
<4 years	18.5%	10.5%	12.2%	80.5%	
4-16 years	44.6%	49.4%	45.7%	19.5%	
>16 years	36.9%	40.1%	42.1%	-	
<i>Monthly income</i>					<0.001
<€1,200	31.1%	19.5%	26.1%	97.6%	
€1,200-2,000	42.1%	27.6%	66.3%	2.4%	
>€2,000	26.8%	52.9%	7.6%	-	
<i>Contract duration</i>					<0.001
permanent	63.6%	69.2%	72.3%	-	
<i>Contract type</i>					0.006
full-time	93.8%	93.6%	96.3%	82.9%	

TRS = Teaching or Research Staff; ASP = Administration or Service Personnel; TRA = Trainees. *p value for χ^2 contrast test.

Results

Characteristics of the study participants

The final sample consisted of $n = 409$ participants, which represents a response rate of 25.6%. The response rate was distributed as follows: 19.3% teaching and research staff, 36.5% administration and service personnel and 25.8% trainees. The mean age of participants was 40.51 years ($SD = 9.09$); 44.4% were males, and 21.9% were not in a stable relationship. A total of 42.9% worked as TRS, 46.9% as ASP and 10.2% were TRA. Table 9 shows the participants' general and by-occupation characteristics. The TRS group included subjects with higher qualifications and higher income ($p < 0.001$). The ASP group had the lowest number of work hours per week ($p < 0.001$). The TRA group was clearly different from the ASP and TRS groups, having the lowest age, the highest proportion of subjects with no children, the shortest length of service, no permanent contracts ($p < 0.001$) and the lowest prevalence of full-time work ($p = 0.006$).

Table 10: Descriptive statistics for the BCSQ-36 scales and subscales

BCSQ-36	Md	SD	Mdn	Q ₁	Q ₃	min	max
<i>Frenetic sub-type</i>	4.12	0.80	4.00	3.58	4.58	2.25	7.00
Involvement	4.92	0.84	5.00	4.50	5.25	2.00	7.00
Ambition	3.91	1.20	3.75	3.00	4.75	1.00	7.00
Overload	3.53	1.29	3.25	2.75	4.50	1.00	7.00
<i>Underchallenged sub-type</i>	3.12	1.15	3.00	2.33	3.83	1.00	6.75
Indifference	2.58	1.20	2.50	1.75	3.00	1.00	7.00
Boredom	3.04	1.40	3.00	2.00	3.87	1.00	7.00
Lack of Development	3.73	1.37	3.50	3.00	4.56	1.00	7.00
<i>Worn-out sub-type</i>	3.79	0.90	3.83	3.17	4.33	1.33	6.42
Lack of Control	4.44	1.17	4.50	3.50	5.25	1.20	7.00
Lack of Acknowledgement	4.42	1.42	4.50	3.25	5.50	1.00	7.00
Neglect	2.52	0.90	2.75	2.00	3.00	1.00	5.50

Md = mean; SD = standard deviation; Mdn = median; Q₁/Q₃ = inter-quartile range; min/max = minimum and maximum score.

Descriptive results

Table 10 shows the descriptive statistics for the BCSQ-36 scales and subscales. The highest scores were found for the frenetic subtype (Md = 4.12; SD

= 0.80), followed by the worn-out subtype (Md = 3.79; SD = 0.90) and finally the underchallenged subtype (Md = 3.12; SD = 1.15), while dispersion values occurred in the reverse order from highest to lowest. The values from the scales did not occupy the entire range of possible responses, with special mention given to the minimum values for the involvement subscale (min = 2.00) and the maximum values for the neglect subscale (max = 5.50).

Burnout type, sociodemographic and occupational risk factors

Table 11 shows the raw and adjusted ORs for the frenetic burnout type. Only the number of hours worked per week and the type of working hours showed statistical significance in the multivariate model for this profile. Specifically, those participants working more than 40 hours per week had a greater likelihood of having a high score than those who worked less than 35 hours per week (adjusted OR = 5.69; 95% CI = 2.52-12.82). In addition, those who worked part-time were more likely to have a high score than those in full-time employment (adjusted OR = 3.30; 95% CI = 1.12-9.74). The linear trend test for the number of hours worked per week provided a significant result ($\chi^2 = 22.56$; $p < 0.001$). No significant differences were found between the observed and expected differences when the Hosmer-Lemeshow test was applied ($\chi^2 = 3.54$; $p = 0.896$). The area under the ROC curve was 0.74 (95% CI = 0.68-0.80; $p < 0.001$).

Table 12 shows the raw and adjusted ORs for the underchallenged burnout type. Only gender and occupation variables kept their statistical significance in the multivariate analysis for this profile. Specifically, the ASP group had a greater likelihood of having a high score than did the TRS group (adjusted OR = 2.85; 95% CI = 1.16-7.01), as did males compared to females (adjusted OR = 2.16; 95% CI = 1.31-3.55). No significant differences were found between the observed and expected differences for the multivariate model of the 'underchallenged' profile when the Hosmer-Lemeshow test was applied ($\chi^2 = 2.83$; $p = 0.945$). The area under the ROC curve was 0.68 (95% CI = 0.61-0.74; $p < 0.001$).

Table 13 shows the raw and adjusted ORs for the worn-out burnout type. Statistical significance was found in the multivariate model for the length of service in the organisation, being in a stable relationship, children and level of education. Subjects who had been working between four and sixteen years were more likely to have a high score (adjusted OR = 3.44; 95% CI = 1.34-8.86), as were those with more than sixteen years of service (adjusted OR = 4.56; 95% CI = 1.47-14.16), when compared to those who had worked for fewer than four years. This result was also the case with workers who were not in stable

relationships compared to those who were (adjusted OR = 1.91; 95% CI = 1.05-3.45) and in those who did not have children compared to those who did (adjusted OR = 1.90; 95% CI = 1.09-3.31). However, those subjects with a university education showed a lower likelihood of this type of burnout compared to those with only secondary education or lower (adjusted OR = 0.48; 95% CI = 0.24-0.96). The linear trend test for the length of service showed a significant result ($\chi^2 = 4.84$; $p = 0.028$). No significant differences were found between the observed and expected differences when the Hosmer-Lemeshow test was applied ($\chi^2 = 8.37$; $p = 0.301$). The area under the ROC curve was 0.70 (95% CI = 0.64-0.76; $p < 0.001$).

Discussion

This study is the first to our knowledge that suggests the existence of associations between the different burnout subtypes (classified according to the degree of dedication to work) and the different sociodemographic and occupational characteristics that are congruent with the definition of each of the subtypes. The results of this work assist the clinical differentiation of subtypes by introducing sociodemographic and occupational variables into the differential burnout model as specific risk factors that are easy to identify. They also facilitate an understanding of the clinical phenomenology of the profiles, encouraging future working hypotheses of a causal nature to be considered among the variables and enabling more specific interventions to be developed for the syndrome.

The variables 'number of hours worked per week' and 'contract type' showed significance in the adjusted model for the "frenetic" burnout subtype. Those employees who invested more than forty hours per week in their jobs had a greater risk of presenting this type of burnout compared to those working fewer than thirty five hours. The number of hours worked per week was associated directly and linearly with the frenetic burnout sub-type in such a way that when the number of hours was increased, so was the risk of developing this burnout profile. This variable seems to be the key factor in the configuration of this profile and could contribute to the development of the syndrome by increasing worker exhaustion levels^{15,17,31-34}. Data regarding contract type show that workers in part-time employment present a higher risk of having this burnout subtype compared to full-time employees. This result may seem contradictory, but this is not the case when we consider that these subjects tend to have several jobs at the same time (e.g., adjunct lecturers and students on traineeships), which is associated with burnout syndrome in general⁴⁹. All of these results are consistent

Table 11: Sociodemographic and occupational risk factors for the 'frenetic' type

Factor	high score (%)	low score (%)	raw OR (95% CI)	p	adjusted OR (95% CI)	p
<i>Age</i>						
>50 years	9 (17.3)	43 (82.7)	ref.		ref.	
35-50 years	46 (20.2)	182 (79.8)	1.21 (0.55-2.65)	0.639	1.66 (0.65-4.26)	0.288
<35 years	48 (41.4)	68 (58.6)	3.37 (1.50-7.56)	0.003	2.94 (0.93-9.35)	0.067
<i>Sex</i>						
female	52 (23.5)	169 (76.5)	ref.		-	
male	51 (29.0)	125 (71.0)	1.33 (0.84-2.08)	0.219	-	-
<i>Stable relationship</i>						
yes	78 (25.1)	233 (74.9)	ref.		-	
no	25 (29.1)	61 (70.9)	1.22 (0.72-2.08)	0.455	-	-
<i>Children</i>						
1 or more	37 (19.6)	152 (80.4)	ref.		ref.	
None	61 (32.3)	128 (67.7)	1.96 (1.22-3.14)	0.005	1.25 (0.68-2.32)	0.467
<i>Education</i>						
secondary	11 (18.3)	49 (81.7)	ref.		-	
university	60 (28.8)	148 (71.2)	1.81 (0.88-3.71)	0.107	-	-
doctorate	32 (24.8)	97 (75.2)	1.47 (0.68-3.16)	0.325	-	-
<i>Hours per week</i>						
<35 hours	23 (15.1)	129 (84.9)	ref.		ref.	
35-40 hours	21 (20.8)	80 (79.2)	1.47 (0.77-2.83)	0.246	1.42 (0.65-3.10)	0.382
>40 hours	55 (44.7)	68 (55.3)	4.54 (2.57-8.01)	<0.001	5.69 (2.52-2.82)	<0.001
<i>Occupation</i>						
TRS	52 (30.4)	119 (69.6)	ref.		ref.	
ASP	33 (17.8)	152 (82.2)	0.50 (0.30-0.82)	0.006	1.76 (0.81-3.81)	0.154
TRA	18 (43.9)	23 (56.1)	1.79 (0.89-3.60)	0.102	0.93 (0.34-2.55)	0.888
<i>Length of service</i>						
<4 years	29 (39.7)	44 (60.3)	ref.		ref.	
4-16 years	50 (28.2)	127 (71.8)	0.60 (0.34-1.06)	0.077	0.92 (0.40-2.09)	0.835
>16 years	24 (16.3)	123 (83.7)	0.30 (0.16-0.56)	<0.001	0.69 (0.22-2.13)	0.516
<i>Monthly income</i>						
>€2,000	25 (24.0)	79 (76.0)	ref.		ref.	
€1,200-2,000	32 (19.3)	134 (80.7)	0.75 (0.42-1.36)	0.352	0.60 (0.26-1.42)	0.250
<€1,200	44 (36.4)	77 (63.6)	1.81 (1.01-3.23)	0.047	0.92 (0.32-2.65)	0.880
<i>Contract duration</i>						
Permanent	47 (18.7)	205 (81.3)	ref.		ref.	
Temporary	56 (38.6)	89 (61.4)	2.74 (1.73-4.35)	<0.001	1.10 (0.49-2.49)	0.819
<i>Contract type</i>						
full-time	91 (24.5)	281 (75.5)	ref.		ref.	
part-time	12 (48.0)	13 (52.0)	2.85 (1.26-6.47)	0.012	3.30 (1.12-9.74)	0.031

% refer to the percentage in each stratum. Raw OR: Odds Ratio resulting from bivariate analysis. Adjusted OR: Odds Ratio for significant variables ($p \leq 0.05$) in bivariate analysis through a multivariate logistic regression model. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile, 'low score' implies scores lower or equal than the upper quartile.

with what has been put forward in the qualitative works to which we previously referred^{1,8-12,15} and they enable the rapid identification of the burnout profile of concern to us. The significance of guilt feelings in the development and continuation of burnout syndrome^{6,7} has already been pointed out. Specifically, the 'frenetic' subtype feels guilt when faced with the prospect of not achieving set goals, given the ambition and great need for achievement that characterise subjects with this profile^{1,15}. These individuals adopt active coping strategies and invest all of their possible efforts until they become exhausted and overloaded¹⁷. Consequently, the treatment for this profile requires a holistic approach that takes into account the cause of their excessive ambition and their associated guilty feelings, in addition to a reduction of their involvement and lessening of their dedication to work in the interest of satisfying their personal needs.

On the other hand, the variables 'occupation' and 'gender' were statistically significant in the adjusted model for the underchallenged burnout subtype. In our study, the ASP group had a greater likelihood of developing this burnout profile when compared to the TRS group. Burnout can generally occur in all types of occupational groups⁵⁰, but public assistance jobs, such as those performed by ASP group members, seem to have an increased risk⁵¹. This risk is possibly due to the antecedent effect produced by the characteristics of this type of work^{22,23,25,26}. It is necessary to take the degree of worker satisfaction into consideration with respect to the characteristics of their jobs in order to address their discontent⁵², as dissatisfied workers present a greater risk of suffering from burnout^{31,32,53}. It is also important to pay attention to worker preferences with regard to the type of work they would like to perform⁵⁴, given that a sustained organisational policy concerning these values improves satisfaction levels and reduces absenteeism in the long term⁵⁵. With regard to 'gender', our study has found that males are at greater risk of suffering from underchallenged burnout than females, perhaps owing to the fact that the role of males has always been linked to social expectations of professional development⁴⁷. Generally, employees with the underchallenged profile have to cope with the disenchantment caused by feeling trapped in an occupational activity to which they are indifferent, which bores them and produces no gratification. These employees present a cynical attitude¹⁷ and are invaded by guilty feelings due to the ambivalence they feel for their work and by their desire for change. These people have lost their objectivity with respect to their natural right to experience needs for personal development and to try to pursue them^{9,15}. Basic components of treatments for this clinical profile should include restoring balance to this distorted view of their needs by approaching the associated guilty feelings, encouraging a renewal of interest and personal development at work by presenting job-related tasks in a significant light.

Table 12: Sociodemographic and occupational risk factors for the 'underchallenged' type

Factor	high score (%)	low score (%)	raw OR (95% CI)	p	adjusted OR (95% CI)	p
<i>Age</i>						
>50 years	12 (23.1)	40 (76.9)	ref.		-	
35-50 years	65 (28.5)	163 (71.5)	1.33 (0.66-2.69)	0.430	-	-
<35 years	26 (22.4)	90 (77.6)	0.96 (0.44-2.10)	0.924	-	-
<i>Sex</i>						
female	46 (20.8)	175 (79.2)	ref.		ref.	
male	57 (32.4)	119 (67.6)	1.82 (1.16-2.87)	0.009	2.16 (1.31-3.55)	0.002
<i>Stable relationship</i>						
yes	77 (24.8)	234 (75.2)	ref.		-	
no	26 (30.2)	60 (69.8)	1.32 (0.78-2.23)	0.306	-	-
<i>Children</i>						
1 or more	52 (27.5)	137 (72.5)	ref.		-	
None	48 (25.4)	141 (74.6)	0.90 (0.57-1.42)	0.641	-	-
<i>Education</i>						
secondary	22 (36.7)	38 (63.3)	ref.		ref.	
university	58 (27.9)	150 (72.1)	0.67 (0.36-1.22)	0.192	1.14 (0.57-2.27)	0.704
doctorate	23 (17.8)	106 (82.2)	0.37 (0.19-0.75)	0.005	1.74 (0.56-5.41)	0.340
<i>Hours per week</i>						
<35 hours	49 (32.2)	103 (67.8)	ref.		ref.	
35-40 hours	28 (27.7)	73 (72.3)	0.81 (0.46-1.40)	0.445	0.89 (0.49-1.61)	0.695
>40 hours	20 (16.3)	103 (83.7)	0.41 (0.23-0.73)	0.003	0.61 (0.29-1.27)	0.187
<i>Occupation</i>						
TRS	27 (15.8)	144 (84.2)	ref.		ref.	
ASP	65 (35.1)	120 (64.9)	2.89 (1.73-0.81)	<0.001	2.85 (1.16-7.01)	0.023
TRA	11 (26.8)	30 (73.2)	1.96 (0.87-0.37)	0.102	2.64 (0.89-7.83)	0.079
<i>Length of service</i>						
<4 years	15 (20.5)	58 (79.5)	ref.		-	
4-16 years	44 (24.9)	133 (75.1)	1.28 (0.66-2.48)	0.466	-	-
>16 years	44 (29.9)	103 (70.1)	1.65 (0.85-3.22)	0.141	-	-
<i>Monthly income</i>						
>€2,000	21 (20.2)	83 (79.8)	ref.		ref.	
€1,200-2,000	52 (31.3)	114 (68.7)	1.80 (1.01-3.22)	0.047	1.29 (0.60-2.79)	0.512
<€1,200	30 (24.8)	91 (75.2)	1.30 (0.69-2.45)	0.412	1.01 (0.41-2.50)	0.987
<i>Contract duration</i>						
Permanent	72 (28.6)	180 (71.4)	ref.		-	
Temporary	31 (21.4)	114 (78.6)	0.68 (0.42-1.10)	0.117	-	-
<i>Contract type</i>						
full-time	99 (26.6)	273 (73.4)	ref.		-	
part-time	4 (16.0)	21 (84.0)	0.52 (0.18-1.57)	0.249	-	-

% refer to the percentage in each stratum. Raw OR: Odds Ratio resulting from bivariate analysis. Adjusted OR: Odds Ratio for significant variables ($p \leq 0.05$) in bivariate analysis through a multivariate logistic regression model. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile, 'low score' implies scores lower or equal than the upper quartile.

Lastly, 'length of service', 'level of education', 'stable relationships' and 'having children' were significant factors in the adjusted model for the worn-out burnout subtype. Employees with between four and sixteen years of service in the organisation and those with more than sixteen year of service were at greater risk of developing the worn-out profile in comparison with those with fewer than four years of service. 'Length of service' in the organisation showed a direct linear association with the worn-out type, to the extent that the longer the service, the greater the likelihood of having this burnout profile. This variable has a certain ambivalence in its relationship with burnout syndrome in general, given that associations have been found that are both direct³⁵, inverse³¹ and even absent⁵⁶. This contradiction may be due to the differential impacts of the various types of organisations on their employees^{57,58} and to the personal relations and forms of communication established in the workplace³⁶, some of which offer protection from the development of the syndrome, while others induce it. Having a university degree, together with a stable relationship and the presence of children, was seen to be factors that protect from the worn-out burnout subtype, which is in line with results obtained in other studies for burnout syndrome in general^{33,34,50,53}. Our results suggest that the prolonged exposure to the environment provided by the organisation that was the object of our study turned out to be a significant risk factor for developing the helplessness characterising the worn-out profile. Employees with this profile adopt a passive coping strategy, becoming ineffective in performing work tasks and they feel guilty because they do not fulfil the responsibilities of their post^{10,15,17}. For this subtype, consideration is given to the suitability of treating not only the feelings of despair, passive coping and inefficacy that characterise it, but also of intervening in the actual contingency system of the organisation, directing its influence as much as possible towards developing commitment to tasks and encouraging the establishment of a social support network.

Through the analysis of the ROC curves, we have seen that the performance shown by the considered sociodemographic and occupational factors in predicting burnout types is superior to a random classifier. Nevertheless, they are far from being the ideal classifier, which means that it might be worth considering other variables that may be associated with the burnout subtypes, such as personality features or specific coping strategies. We should also not overlook the fact that as values for the considered variables were self-reported, they may have been influenced by socially-desirable responses. This phenomenon may have occurred more particularly in the subscales of involvement and neglect, as dedication to work is quite important in Western culture, dedication to work. Further, given that

Table 13: Sociodemographic and occupational risk factors for the 'worn-out' type

Factor	high score (%)	low score (%)	raw OR (95% CI)	p	adjusted OR (95% CI)	p
<i>Age</i>						
>50 years	21 (40.4)	31 (59.6)	ref.		ref.	
35-50 years	72 (31.6)	156 (68.4)	0.68 (0.37-1.27)	0.225	0.87 (0.44-1.76)	0.707
<35 years	24 (20.7)	92 (79.3)	0.38 (0.19-0.79)	0.009	0.80 (0.30-2.13)	0.654
<i>Sex</i>						
female	68 (30.8)	153 (69.2)	ref.		-	
male	50 (28.4)	126 (71.6)	0.89 (0.58-1.38)	0.609	-	-
<i>Stable relationship</i>						
yes	79 (25.4)	232 (74.6)	ref.		ref.	
no	39 (45.3)	47 (54.7)	2.44 (1.48-4.00)	<0.001	1.91 (1.05-3.45)	0.033
<i>Children</i>						
1 or more	47 (24.9)	142 (75.1)	ref.		ref.	
None	65 (34.4)	124 (65.6)	1.58 (1.01-2.47)	0.043	1.90 (1.09-3.30)	0.024
<i>Education</i>						
secondary	27 (45.0)	33 (55.0)	ref.		ref.	
university	48 (23.1)	160 (76.9)	0.37 (0.20-0.67)	0.001	0.48 (0.24-0.95)	0.037
doctorate	43 (33.3)	86 (66.7)	0.61 (0.33-1.14)	0.123	0.60 (0.30-1.19)	0.146
<i>Hours per week</i>						
<35 hours	41 (27.0)	111 (73.0)	ref.		-	
35-40 hours	28 (27.7)	73 (72.3)	1.04 (0.59-1.82)	0.896	-	-
>40 hours	38 (30.9)	85 (69.1)	1.21 (0.72-2.04)	0.475	-	-
<i>Occupation</i>						
TRS	54 (31.6)	117 (68.4)	ref.		-	
ASP	57 (30.8)	128 (69.2)	0.96 (0.62-1.51)	0.876	-	-
TRA	7 (17.1)	34 (82.9)	0.45 (0.19-1.07)	0.071	-	-
<i>Length of service</i>						
<4 years	8 (11.0)	65 (89.0)	ref.		ref.	
4-16 years	55 (31.1)	122 (68.9)	3.66 (1.64-8.15)	0.001	3.44 (1.34-8.86)	0.010
>16 years	55 (37.4)	92 (62.6)	4.86 (2.17-0.88)	<0.001	4.56 (1.47-4.16)	0.009
<i>Monthly income</i>						
>€2,000	34 (32.7)	70 (67.3)	ref.		-	
€1,200-2,000	56 (33.7)	110 (66.3)	1.05 (0.62-1.76)	0.860	-	-
<€1,200	26 (21.5)	95 (78.5)	0.56 (0.31-1.02)	0.060	-	-
<i>Contract duration</i>						
Permanent	86 (34.1)	166 (65.9)	ref.		ref.	
Temporary	32 (22.1)	113 (77.9)	0.55 (0.34-0.87)	0.012	1.04 (0.52-2.05)	0.919
<i>Contract type</i>						
full-time	113 (30.4)	259 (69.6)	ref.		-	
part-time	5 (20.0)	20 (80.0)	0.57 (0.21-1.56)	0.277	-	-

% refer to the percentage in each stratum. Raw OR: Odds Ratio resulting from bivariate analysis. Adjusted OR: Odds Ratio for significant variables ($p \leq 0.05$) in bivariate analysis through a multivariate logistic regression model. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile, 'low score' implies scores lower or equal than the upper quartile.

the minimum values for the former and the maximum values for the latter do not encompass the entire range of possible responses. On the other hand, the cross-sectional design of the study forces us to be cautious when drawing conclusions regarding the aetiology of burnout subtypes. However, confirmation of these types of associations does not come under the scope of this study. The main aim of this work was to ascertain in an exploratory fashion which sociodemographic and occupational variables could be associated with the different burnout subtypes in order to assist in the recognition and understanding of these clinical profiles. This goal does not require that the established associations must be of a causal nature. Nevertheless, the fact that these sociodemographic and occupational variables existed prior to the time of measurement (which implies the fulfilment of the premise of temporal precedence) and evidence of a dose-response relationship (statistically significant *p* values for linear trend analysis) would support that hypothesis. Therefore, our study makes advancement possible in the generation of new hypotheses that may be subsequently confirmed by means of a suitable research design³⁸. With regard to the representative nature of the sample, we believe that although the response rate obtained may seem low and the distribution by occupational levels may seem uneven, these values are comparable to those found in other studies using the same data collection procedures^{40,41}. We consider that one strength of this study lies in the fact that the work was carried out with a broad and multi-occupational sample of university employees in positions with very different characteristics, which reinforces the possibility of generalising our conclusions. Additionally, data quality was controlled by eliminating possible errors in the questionnaire transcription process through the use of purpose-designed software.

Conclusions

Our results add to the understanding of the type of professional burnout present in employees of a university organisation in Spain and support the idea of a differential characterisation of burnout syndrome by providing specific associations with a number of sociodemographic and occupational factors that are congruent with the definition by clinical profiles. We have seen that the frenetic profile is highly associated with the number of hours per week dedicated to work, that the underchallenged profile is related with the type of occupation and that the worn-out profile is associated with the cumulative effect over time of the characteristics of an organisation. The recognition of these variables will assist the process of clinical differentiation of those affected by the syndrome, as these are factors that can be rapidly identified. These subtypes of burnout will need to be

taken into account when designing specific treatments according to the characteristics of each subject if we are to increase the effectiveness of our interventions for burnout syndrome.

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Chapter 5

Towards a brief definition of burnout by subtypes*

“A feeling of emptiness reigned in his soul and he couldn't find any plan that excited him, any job that attracted his attention and that he could happily perform. However, his compulsive need to work on something, the inability of his mind to stop plotting for even just a second, his desire of activity, which was, undoubtedly, very different from the natural pleasure and the solid satisfaction that his ancestors felt at work, were something artificial, a kind of a nervous impulse, a way to dull his senses. Deep down, this was just like the small Russian cigarettes that he lighted one after another...”

(Thomas Mann, *Los Buddenbrook*, 1901)

* Montero-Marín J, et al.: Towards a brief definition of burnout syndrome by subtypes: development of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). *Health Qual Life Outcomes* 2011, 9:74.

Abstract

Background

Burnout has traditionally been described by means of the dimensions of exhaustion, cynicism and lack of efficacy from the 'Maslach Burnout Inventory-General Survey' (MBI-GS). The 'Burnout Clinical Subtype Questionnaire' (BCSQ-12), comprising the dimensions of overload, lack of development and neglect, is proposed as a brief means of identifying the different ways this disorder is manifested. The aim of the study is to test the construct and criterial validity of the BCSQ-12.

Method

A cross-sectional design was used on a multi-occupational sample of randomly selected university employees ($n = 826$). An exploratory factor analysis (EFA) was performed on half of the sample using the maximum likelihood (ML) method with varimax orthogonal rotation, while confirmatory factor analysis (CFA) was performed on the other half by means of the ML method. ROC curve analysis was performed in order to assess the discriminatory capacity of BCSQ-12 when compared to MBI-GS. Cut-off points were proposed for the BCSQ-12 that optimized sensitivity and specificity. Multivariate binary logistic regression models were used to estimate effect size as an odds ratio (OR) adjusted for sociodemographic and occupational variables. Contrasts for sex and occupation were made using Mann-Whitney U and Kruskal-Wallis tests on the dimensions of both models.

Results

EFA offered a solution containing 3 factors with eigenvalues > 1 , explaining 73.22% of variance. CFA presented the following indices: $\chi^2 = 112.04$ ($p < 0.001$), $\chi^2/df = 2.44$, GFI = 0.958, AGFI = 0.929, RMSEA = 0.059, SRMR = 0.057, NFI = 0.958, NNFI = 0.963, IFI = 0.975, CFI = 0.974. The area under the ROC curve for 'overload' with respect to the 'exhaustion' was = 0.75 (95% CI = 0.71-0.79); it was = 0.80 (95% CI = 0.76-0.86) for 'lack of development' with respect to 'cynicism' and = 0.74 (95% CI = 0.70-0.78) for 'neglect' with respect to 'inefficacy'. The presence of 'overload' increased the likelihood of suffering from 'exhaustion' (OR = 5.25; 95% IC = 3.62-7.60); 'lack of development' increased the likelihood from 'cynicism' (OR = 6.77; 95% CI = 4.79-9.57); 'neglect'

increased the likelihood from 'inefficacy' (OR = 5.21; 95% CI = 3.57-7.60). No differences were found with regard to sex, but there were differences depending on occupation.

Conclusions

Burnout is a state of long-term exhaustion and diminished interest caused by excessive and prolonged stress. Our results support the validity of the definition of burnout proposed in the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12), through the brief differentiation of clinical subtypes. BCSQ-12 has been found to be very useful in evaluating the underlying causes of burnout syndrome, which are vital to know when designing specific interventions and treatment strategies.

Background

Burnout syndrome is considered a uniform condition with relatively consistent aetiology and symptoms resulting from prolonged exposure to chronic stressors in the workplace¹. This syndrome tends to be given standard operationalization through the 'Maslach Burnout Inventory General Survey' (MBI-GS) by means of the dimensions of exhaustion, cynicism and professional inefficacy². 'Exhaustion' is the feeling of not being able to offer any more of oneself at an emotional level; 'cynicism' is contemplated as a distant attitude towards work; and 'inefficacy' is the feeling of not performing tasks adequately.

Clinical experience, however, shows that burnout is manifested in different ways that can be classified depending on the level of dedication with which individuals cope with work-related tasks^{3,4}. The 'frenetic' burnout sub-type is characterized by the investment of a large amount of time to work and is common in highly involved, ambitious and overloaded individuals. 'Involvement' is the investment of every effort required to overcome difficulties; 'ambition' is a great need to obtain important success and achievements at work; and 'overload' is risking one's own health and neglecting of one's own personal life in the pursuit of good results⁴⁻⁷. The 'underchallenged' burnout subtype is influenced by the occupation type. It appears in indifferent and bored individuals who do not find personal development in their work. 'Indifference' is lack of concern, interest and enthusiasm in work-related tasks; 'boredom' is caused by the understanding of work as a mechanical and routine experience with little variation in activities; and 'lack of development' is the absence of personal growth experiences for individuals together with their desire for taking on other jobs where they can better develop their skills⁴⁻⁷. The 'worn-out' burnout subtype is determined by the rigidity of the organizational structure of an individual's workplace and is characterized by a lack of control over results, lack of recognition for efforts and neglect of responsibilities. 'Lack of control' is the feeling of helplessness as a result of dealing with many situations that are beyond their control; 'lack of acknowledgement' is the belief that the organizations those individuals work for fail to take their efforts and dedication into account; and 'neglect' refers to individuals' disregard as a response to any difficulty⁴⁻⁷.

This conceptualization of burnout, operationalized through the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36), is very useful for the specific evaluation of the syndrome and for the design of treatment strategies depending on the characteristics of each clinical case. This is practicable given that it provides a broader framework that exceeds the possibilities for evaluation and

intervention implicit in the standard design of the MBI-GS, which is more directed towards a unified (although three-dimensional) definition of the syndrome^{7,8}.

The dimensions of overload, lack of development and neglect, belonging to the subtypes of frenetic, underchallenged and worn-out, respectively, could construct a brief definition of burnout that is able to bring the typological perspective of the BCSQ-36 closer to the MBI-GS standard⁸. These dimensions have been proposed as a definition of burnout that could cover common ground between the typological and standard approaches, and have been selected as a result of a second order factor analysis, carried out between the dimensions of BCSQ-36 and MBI-GS taken together^{1,2,4,7,8}. These dimensions showed good discriminant validity, which makes them very useful for the brief identification of clinical subtypes of burnout⁸. However, it is necessary to explore and confirm the structure of this new definition, in view of the fact that it groups the items of the original scale in a different way. It will also be necessary to analyse its criterion validity because this new design reduces the extent of the initial typological definition.

The main objectives of this study were to test the factorial structure of the differential design proposed by means of the dimensions of overload, lack of development and neglect through the BCSQ-12, and to estimate its discriminatory strength compared to the dimensions of exhaustion, cynicism and inefficacy of the MBI-GS standard. We also proposed to evaluate the internal consistency of the dimensions and possible differences caused by gender and occupation.

Method

Design and study population

A cross-sectional design was utilized by means of the self-report technique through an online questionnaire completed by selected subjects who had provided informed consent.

The study population was comprised of the entire workforce of the University of Zaragoza in employment in January 2008 (N = 5,493). The sample size was calculated with a 95% confidence interval and a margin of error of 3.5%. The prevalence of burnout was estimated at 18%⁹, giving a result of 427 subjects. As the expected response rate in web-mail surveys is approximately 27%^{10,11}, and in order to perform both an exploratory and confirmatory factor analysis on the different groups, 3,200 employees were selected by stratified probability sampling with proportional allocation by occupation (58% teaching and research staff or

'TRS', 33% administration and service personnel or 'ASP' and 9% trainees or 'TRA').

The participants' total final sample ($n_T = 826$) was divided randomly into two equal halves ($n_1 = 413$ and $n_2 = 413$). The size of the resulting sub-samples permitted the established margin of error to be maintained and exceeded the construct validity evaluation criterion, making it possible to perform the analysis on both groups with psychometric adjustment¹²⁻¹⁵. The sample size calculation, subject selection and sample division were performed with Epidat 3.1. software.

Procedure

An e-mail was sent to the selected subjects explaining the aims of the research. This message contained a link to an online questionnaire and two access passwords that enabled the subjects to complete the questionnaire during the month of February 2008. The first page of the protocol again provided another explanation of the aims of the study, the participants to whom it was addressed, the voluntary nature of participation in it, possible benefits/risks entailed and the confidentiality of information given. All participants received an anonymous report with an explanation of their results. The project was approved by the regional Clinical Research Ethics Committee of Aragon.

Measurements

Sociodemographic and Occupational factors

Subjects were first asked a set of questions dealing with socio-demographic and occupational characteristics including: age, sex, whether they were in a stable relationship ('yes' vs 'no'), level of education ('secondary or lower', 'university degree', 'doctorate'), occupation type ('TRS', 'ASP', 'TRA'), years of service ('< 4', '4-16', '> 16'), type of employment contract ('permanent' vs 'part time') and whether they had taken sick leave in the previous year ('yes' vs 'no').

Burnout Clinical Subtype Questionnaire (BCSQ-12)

Following on, they were provided with the 'Burnout Clinical Subtype Questionnaire' in its brief Spanish version, the BCSQ-12 (Annex 3: English language version of BCSQ-12; Annex 4: Spanish language version of BCSQ-12). This questionnaire consists of 12 items equally distributed between the dimensions of overload (e.g. "I overlook my own needs to fulfil work demands"), lack of development (e.g. "My work doesn't offer me opportunities to develop my

abilities”) and neglect (e.g. “When things at work don't turn out as well as they should, I stop trying”). Subjects had to indicate their degree of agreement with each of the statements presented according to a Likert-type scale with 7 response options, scored from 1 ('totally disagree') to 7 ('totally agree'). The results were presented as scalar scores. Cronbach's α coefficient showed the internal consistency of these dimensions, with values of $\alpha \geq 0.85$ in all cases in the present study.

Maslach Burnout Inventory General Survey (MBI-GS)

Subjects were also given the 'Maslach Burnout Inventory-General Survey' (MBI-GS)² in its validated Spanish language version¹⁶. This adaptation (Annexes 7 and 8) consists of 15 items grouped into three dimensions: exhaustion (e.g. “I feel emotionally drained from my work”), cynicism (e.g. “I've become more callous towards people since I took this job”) and efficacy (e.g. “I deal very effectively with the problems of my work”). Responses were arranged (in a Likert = type scale with 7 response options, scored from 0 ('never') to 6 ('always')). Results are presented in scalar scores. All of the questionnaire dimensions acquired an internal consistency of $\alpha \geq 0.78$ ¹⁶.

Data análisis

A descriptive analysis of the participants' socio-demographic and occupational characteristics was conducted, using means and standard deviations for age and percentages for the other variables. Contrasts were made depending on the sub-sample to which participants belonged using Student's t-test for age and χ^2 for the rest.

An initial contrast was made of the validity of the BCSQ-12 construct by means of an exploratory factor analysis (EFA) over n_1 . The maximum likelihood (ML) extraction method was used with varimax orthogonal rotation to facilitate interpretation, enabling relatively unrelated dimensions to be obtained. We had previously verified that: the correlations matrix presented a large number of significant values; all variables presented a value of $r > 0.30$; the absolute values of the anti-image matrix were close to 0; the matrix determining factor was very low; the Kaiser-Meyer-Olkin (KMO) index was > 0.70 ; Barlett's test of sphericity was statistically significant; and the measures of sampling adequacy (MSA)¹³ were above 0.80. The number of components was decided using Kaiser's criterion¹⁷, which requires eigenvalues > 1 , in addition to Cattell's scree test on the sedimentation graph¹⁸. The belonging factor was determined by means of the

factor weight criterion $w > 0.5$ in only one of the factors¹² and the percentage of variance explained in each variable by means of h^2 communality values.

Confirmatory factor analysis (CFA) was performed over n_2 in order to ensure the clear distinction between the factors. The covariance matrix was used for data entry as it enables robust analysis to be made of ordinal data when the latent variables present more than one indicator¹⁹. This analysis was carried out using the ML method. This method assumes a multivariate normality, although it is relatively insensitive to its non-observance^{20,21}. Nevertheless, we ensured that Mardia's coefficient for kurtosis was < 70 , given that below this limit, the ML method provides consistent parameter estimates^{22,23}. All components of the model were introduced as latent factors, taking the items of the BCSQ-12 as observable variables distributed according to the original proposal⁷. From an analytical perspective, factor saturations (λ) > 0.5 , the explained variance on each observable variable (R^2) and the degree of association between latent factors (ϕ), all of which were standardized, were taken into account²⁴⁻²⁶. From a general perspective, absolute fit and incremental fit indices were contemplated.

The absolute fit indices used were: chi-square (χ^2), chi-square/degrees of freedom (χ^2/df), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). χ^2 is highly sensitive to sample size²⁴, for which use was also made of χ^2/df , which indicates a good fit^{20,21,24,25} with a value < 5 or, more strictly, < 3 . GFI measures explained variance and presents the same limitation as χ^2 , while AGFI corrects this limitation depending on the degrees of freedom and number of variables. Both are considered acceptable²⁶⁻²⁹ ≥ 0.9 . RMSEA is a measurement of the error of approximation to the population and is considered acceptable < 0.08 , although values of < 0.06 and < 0.05 have also been proposed^{24,28,30}. Generally speaking, values < 0.05 are good, while those close to 0.08 are reasonable and values > 0.1 are unacceptable³¹. SRMR is the standardized difference between the observed and the predicted covariance²¹, indicating a good fit for values < 0.08 .

The incremental fit indices used were: normed fit index (NFI), non-normed fit index (NNFI), incremental fit index (IFI) and comparative fit index (CFI). NFI measures the proportional reduction in the adjustment function when going from null to the proposed model; it does not take into account the parsimony of the model^{32,33} and is considered acceptable > 0.9 . NNFI considers the degree of freedom of the proposed model and of the independence model and ≥ 0.9 is recommended, although > 0.9 and ≥ 0.95 have been proposed^{26,33,34}. IFI also introduces a factor of scale, with values > 0.9 being acceptable³⁵. CFI measures

improvement in the measurement of non-centrality, also taking into account the parsimony of the model, and indicates good fit ≥ 0.9 , although > 0.9 and ≥ 0.95 have also been proposed^{26,30,34}.

Criterial validity was estimated using ROC curve analysis over n_T . The area under this curve was taken as a representation of the discriminatory capacity of the overload, lack of development and neglect dimensions (BCSQ-12) to differentiate between 'cases' and 'non-cases' of exhaustion, cynicism and lack of efficacy (MBI-GS), respectively. 'Case'/'non-case' status was established in the criterion dimensions taking as the cut-off the 75 percentile of the standard yardstick for the general Spanish population, corresponding to high or very high scores (exhaustion ≥ 2.90 ; cynicism ≥ 2.26 and efficacy ≤ 3.83)¹⁶. The χ^2 test was used to contrast the area under the ROC curve against the hypothesis of random behaviour. Cut-off points were chosen for the BCSQ-12 dimensions at scores that optimized the sensitivity-specificity (SE-SP) ratio, marking the difference between 'exposed' and 'non-exposed' in each of the conditions.

Accuracy was also calculated by means of negative predictive values, overall misclassification rate, positive likelihood ratio tests (coefficient between sensitivity and 1-specificity) and negative likelihood ratio tests (coefficient between 1-sensitivity and specificity). Likelihood ratio tests between 0.5-2 are regarded as poor; between 2-5 or 0.2-0.5 as good; 5-10 or 0.1-0.2 as very good, and > 10 or < 0.1 as excellent³⁶. The size of the effect was estimated by using multivariate logistic regression (LR) models by means of the calculation of adjusted Odds ratios (OR), controlling the variables of age, sex, stable relationship, level of education, occupation type, years of service and duration and type of work contract, described in the preceding section. The statistical significance of the effect was estimated by the Wald test and the goodness of fit of models by means of the Hosmer-Lemeshow (H-L) χ^2 test. Confidence intervals at 95% (CI 95%) were calculated in all measures of accuracy and effect.

The distribution of items and factors were described by means of the statistical concepts of mean, standard deviation, median, 25-75 percentiles, minimum-maximum scores, asymmetry and kurtosis. Internal consistency was assessed by means of the item-rest correlation, Cronbach's α and according to changes in α through the elimination of each individual item. Contrasts were made depending on sex and occupation using the Mann-Whitney and Kruskal-Wallis tests, given the non-parametric distribution of the dimensions on these groups.

The level of significance adopted in the tests was $\alpha < 0.05$, and $\alpha < 0.017$ for multiple comparisons owing to the Bonferroni correction. Data analysis was carried out using the SPSS-15, AMOS-7 and Epidat 3.1 software packages.

Table 14: Characteristics of the study participants

Variables	Total sample ($n_1=826$)	Sub-sample 1 ($n_1=413$)	Sub-sample 2 ($n_2=413$)	p
Age				0.242
Md (SD)	40.26 (9.52)	40.64 (9.59)	39.87 (9.46)	
Sex				0.362
male	366 (44.31)	176 (42.62)	190 (46.00)	
Stable Relationship				0.999
yes	647 (78.33)	324 (78.45)	323 (78.21)	
Education				0.667
secondary	119 (14.41)	64 (15.50)	55 (13.32)	
university	423 (51.21)	208 (50.36)	215 (52.06)	
doctorate	284 (34.38)	141 (34.14)	143 (34.62)	
Occupation				0.988
TRS	372 (45.04)	185 (44.79)	187 (45.28)	
ASP	351 (42.49)	176 (42.62)	175 (42.37)	
TRA	103 (12.47)	52 (12.59)	51 (12.35)	
Length of service				0.210
<4 years	184 (22.28)	85 (20.58)	99 (23.97)	
4-16 years	353 (42.74)	172 (41.65)	181 (43.83)	
>16 years	289 (34.99)	156 (37.77)	133 (32.20)	
Contract duration				0.775
permanent	503 (60.90)	254 (61.50)	249 (60.29)	
Contract type				0.718
full-time	750 (90.80)	377 (91.28)	373 (90.31)	
Sick leave				0.201
yes	256 (30.99)	119 (28.81)	137 (33.17)	

The figures represent frequencies, percentages (in brackets) and the p value associated with an χ^2 contrast between sub-sample 1 and sub-sample 2 except for the age variable where the figures represent means, standard deviations and the p value associated with a t contrast.

Results

Characteristics of the study participants

A response rate (RR) of 25.81% was obtained, with 'TRS' (RR = 20.04%) being less participative than 'ASP' (RR = 33.24%) and 'TRA' (RR = 35.76%) ($p < 0.001$). Table 14 shows the socio-demographic and occupational characteristics of the participants. No significant differences were found between the sub-samples in any of them.

Factorial Validity

Exploratory Factor Analysis (EFA) over n_1

All the items presented values of $r > 0.30$ in the correlations matrix, with 89.39% of them being significant. 83.33% of the MSA were > 0.80 and absolute anti-image values approached 0. The KMO was = 0.83, the matrix determining factor = 0.001 and Bartlett's test $p < 0.001$. Consequently, the data distribution enabled EFA to be performed legitimately. This analysis provided an unforced solution for three factors. The first (neglect) explained 37.53% of the variance (eigenvalue = 4.50); the second (lack of development) explained 20.13% (eigenvalue = 2.41); and the third (overload) explained 16.12% (eigenvalue = 1.94). The scree test allowed the solution to be accepted as adequate. In total, 73.78% of the variance was explained. Table 15 shows the rotated factor solution and h^2 values.

Confirmatory Factor Analysis (CFA) over n_2

Mardia's coefficient was = 66.77 ($p < 0.001$), which made it possible to use the ML estimation method in conditions of distance from the assumption of multivariate normality. Figure 5 shows the results of CFA from an analytical perspective. The fit indices for this model were: $\chi^2 = 149.61$ ($gl = 51$; $p < 0.001$), $\chi^2/gl = 2.93$, GFI = 0.941, AGFI = 0.911, RMSEA = 0.068 (90% CI = 0.055-0.080), SRMR = 0.059, NFI = 0.943, NNFI = 0.951, IFI = 0.962 and CFI = 0.962. The entry into the model of those correlations between the error terms with modification indices that showed significant reductions in the value of χ^2 [e_4 - e_5 ($r = 0.13$; $p = 0.015$), e_4 - e_{10} ($r = 0.19$; $p = 0.009$), e_5 - e_6 ($r = 0.18$; $p = 0.002$), e_5 - e_{11} ($r = 0.20$; $p < 0.001$) y e_6 - e_{11} ($r = 0.15$; $p = 0.014$)], gave the following indices: $\chi^2 = 112.04$ ($gl = 46$; $p < 0.001$), $\chi^2/gl = 2.44$, GFI = 0.958, AGFI = 0.929, RMSEA = 0.059 (90% CI = 0.045-0.073), SRMR = 0.057, NFI = 0.958, NNFI = 0.963, IFI = 0.975 and CFI = 0.974.

Tabla 15: Exploratory Factor Analysis - weightings and communalities

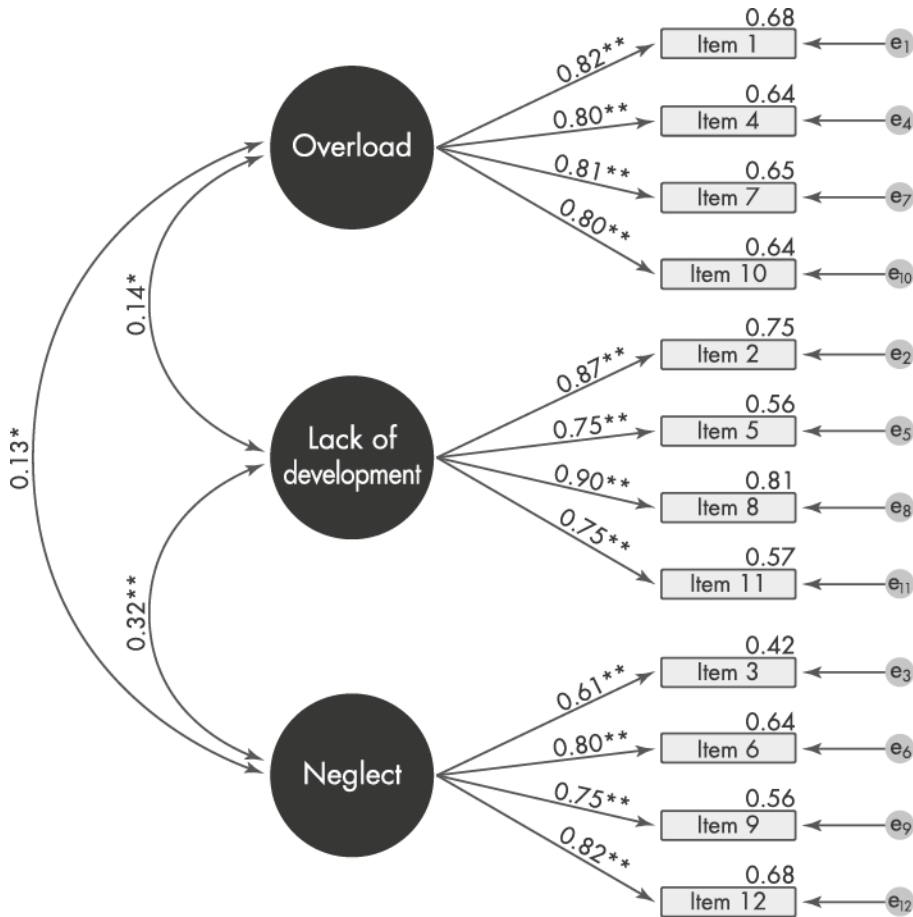
Items	Factor weighting			
	1	2	3	h ²
3. When things at work don't turn out as well as they should, I stop trying	0.72	0.13	0.07	0.54
6. I give up in response to difficulties in my work	0.85	0.15	0.14	0.76
9. I give up in the face of any difficulties in my work tasks	0.73	0.17	0.14	0.58
12. When the effort I invest in work is not enough, I give in	0.82	0.12	0.09	0.70
2. I would like to be doing another job that is more challenging for my abilities	0.02	0.85	0.05	0.73
5. I feel that my work is an obstacle to the development of my abilities	0.29	0.68	0.22	0.62
8. I would like to be doing another job where I can better develop my talents	0.12	0.92	0.04	0.86
11. My work doesn't offer me opportunities to develop my abilities	0.22	0.72	0.02	0.58
1. I think the dedication I invest in my work is more than what I should for my health	0.07	0.13	0.80	0.67
4. I neglect my personal life when I pursue important achievements in my work	0.09	0.02	0.82	0.67
7. I risk my health when I pursue good results in my work	0.06	0.01	0.77	0.60
10. I overlook my own needs to fulfil work demands	0.20	0.11	0.68	0.52

Extraction method: Maximum Likelihood with Varimax orthogonal rotation on sub-sample 1.
h²=communalities. Bold = belonging factor

Criterial validity

When predicting exhaustion, the area under the ROC curve for overload was = 0.75, this was = 0.80 for lack of development relative to cynicism and = 0.74 for neglect relative to inefficacy ($p < 0.001$). Table 16 shows the accuracy of cut-off points that optimized the sensitivity-specificity ratio [overload ≥ 3.38 (SE = 75.89; SP = 62.35); lack of development ≥ 3.63 (SE = 70.71; SP = 70.57); neglect ≥ 2.63 (SE = 71.19; SP = 67.03)].

Figure 5: Analytical perspective of Confirmatory Factor Analysis (CFA)



BCSQ-12 measurement model and standardized estimations from sub-sample 2. The factor weightings (λ) are over the one-way arrows, the percentage of explained variance for each observable variable (R^2) over the boxes, and the correlations between latent factors (ϕ) next to the two-way arrows. * $p < 0.05$; ** $p < 0.001$.

Descriptives, internal consistency and contrasts

25.06% of participants in the total sample presented high or very high scores in only one of the MBI-GS dimensions; 16.46% did so in two of them; and 8.11% in all three. Table 17 shows the descriptives for the BCSQ-12 items, while Tables 18 and 19 show those corresponding to the BCSQ-12 and MBI-GS dimensions, as well as contrast with regard to sex and occupation. The results of the internal consistency analysis showed that removal of items separately caused the α value to decrease in all cases. No differences were found with regard to sex, but there were differences depending on occupation. Teaching or research staff (TRS) showed higher levels of exhaustion than administration or service personnel

(ASP), TRS and trainees (TRA) presented higher levels of overload, ASP showed higher levels of lack of development ($p < 0.001$). TRA showed lower levels of neglect than ASP ($p = 0.004$).

Table 16: Exactness of BCSQ-12 according to MBI-GS

	cut-off point overload ≥ 3.38 criterion: exhaustion		cut-off point L.development ≥ 3.63 criterion: cynicism		cut-off point neglect ≥ 2.63 criterion: inefficacy	
	index	95% IC	index	95% IC	index	95% IC
Sens *	75.89	70.07 - 81.72	70.71	65.21 - 76.22	71.19	64.23 - 78.14
Spec *	62.35	58.40 - 66.30	70.57	66.66 - 74.48	67.03	63.33 - 70.72
PPV ^a *	42.82	37.83 - 47.81	55.15	49.87 - 60.44	37.06	31.78 - 42.34
NPV ^b *	87.44	84.19 - 90.69	82.48	78.93 - 86.06	89.51	86.68 - 92.33
OMR ^c *	33.98	30.69 - 37.27	29.38	26.22 - 32.55	32.08	28.84 - 35.33
PLR ^d	2.02	1.78 - 2.29	2.40	2.07 - 2.79	2.16	1.87 - 2.49
NLR ^e	0.39	0.30 - 0.49	0.42	0.34 - 0.50	0.43	0.34 - 0.55
OR ^f	5.25 ^g	3.62 - 7.60	6.77 ^h	4.79 - 9.57	5.21 ⁱ	3.57 - 7.60

*values given as percentages. Sens = Sensitivity. Spec = Specificity. a = Positive predictive value. b = Negative predictive value. c = Overall misclassification rate. d = Positive likelihood ratio. e = Negative likelihood ratio. f = Adjusted Odds Ratio by means of multivariate logistic regression models controlling age, sex, stable relationship, education, occupation, length of service, contract duration and contract type. g = Wald $p < 0.001$; H-L $p = 0.451$. h = Wald $p < 0.001$; H-L $p = 0.093$. i = Wald $p < 0.001$; H-L $p = 0.216$. Values obtained from the total sample (n_1).

Discussion

The BCSQ-12 has been proposed as a definition of burnout that could cover common ground between the typological and standard approaches^{1,2,4,7,8}. Its factor and criterial validity had not been tested until now. By using a multi-occupational sample of university employees, EFA and CFA were performed on different sub-samples, a ROC curve analysis was carried out with the MBI-GS as a standard criterion and a contrast of hypotheses was made for both models with respect to sex and occupation.

The prevalence values obtained for the study sample according to the classical dimensions were high, although within the expected range. The structure of the BCSQ-12 behaved consistently throughout the factor analyses. All the items loaded perfectly on the factors following the original design, and they were all well explained. Internal consistency was very good in all cases and all items contributed to its increase. The restrictions imposed by the model were well fitted to all the data, from both an absolute and incremental perspective. The

Table 17: Descriptive statistics for BCSQ-12 items

Items	Mn	SD	Q ₁	Mdn	Q ₃	min	max	asym ^a	kurt ^b	item-rest
1. I think the dedication I invest in my work is more than what I should for my health	3.83	1.66	3.00	4.00	5.00	1.00	7.00	0.09	-0.80	0.75
4. I neglect my personal life when I pursue important achievements in my work	3.10	1.71	2.00	3.00	4.00	1.00	7.00	0.57	-0.56	0.75
7. I risk my health when I pursue good results in my work	3.43	1.69	2.00	3.00	5.00	1.00	7.00	0.33	-0.73	0.74
10. I overlook my own needs to fulfill work demands	3.53	1.63	2.00	3.00	5.00	1.00	7.00	0.21	-0.73	0.69
2. I would like to be doing another job that is more challenging for my abilities	3.42	1.86	2.00	3.00	5.00	1.00	7.00	0.31	-0.90	0.77
5. I feel that my work is an obstacle to the development of my abilities	3.08	1.64	2.00	3.00	4.00	1.00	7.00	0.61	-0.29	0.72
8. I would like to be doing another job where I can better develop my talents	3.68	1.86	4.00	4.00	5.00	1.00	7.00	0.14	-1.01	0.82
11. My work doesn't offer me opportunities to develop my abilities	3.53	1.86	2.00	3.00	5.00	1.00	7.00	0.30	-0.96	0.73
3. When things at work don't turn out as well as they should, I stop trying	2.46	1.26	1.00	2.00	3.00	1.00	7.00	0.92	1.08	0.61
6. I give up in response to difficulties in my work	2.36	1.24	1.00	2.00	3.00	1.00	7.00	0.88	0.90	0.74
9. I give up in the face of any difficulties in my work tasks	2.12	1.09	1.00	2.00	3.00	1.00	7.00	1.05	1.84	0.68
12. When the effort I invest in work is not enough, I give in	2.48	1.20	1.00	3.00	3.00	1.00	7.00	0.69	0.64	0.74

Mn = mean, SD = standard deviation, Mdn = median, Q₁ = percentile-25, Q₃ = percentile-75, min = minimum score, Max = maximum score, asym = asymmetry, kurt = kurtosis, item-rest = correlation coefficient item-rest (r between each item and the remaining items belonging to the same factor), α = typical asymmetry error = 0.08 for all items, B = typical kurtosis error = 0.17 for all items. Values obtained from the total sample (n_T = 826).

discriminatory capacity of the classifier and the accuracy associated with the proposed cut-off points were good. The sensitivity and specificity shown by the dimensions of the BCSQ-12 when predicting those of the MBI-GS do not show the values that we normally expect to obtain from an ideal classifier, however, they are seen to be moderately high and all significant, far from those of random behaviour. Although the likelihood of being a 'non-case' among unexposed subjects offered an excellent score that of being a 'case' among exposed subjects offered a more limited score, which made the misclassification increase in this sense. Nevertheless, the likelihood of being a 'case' among exposed subjects was much greater than those who were not exposed, the likelihood of attaining the status of 'exposed' was greater among the 'cases' and the likelihood of attaining the status of 'unexposed' was greater among 'non-cases'. No significant differences were found with regard to sex, but there were differences depending on occupation. TRS showed higher levels of exhaustion than ASP. TRS and TRA presented higher levels of overload and ASP showed higher levels of lack of development. TRA showed lower levels of neglect than ASP.

As limitations to the study, we should mention that the scores for variables considered were self-reported and therefore may have been weakened by the effects of socially desirable responses. The utilization of a sample obtained from a sole organization may have limited the external validity of the obtained results. Still, this is a broad and multi-occupational sample made up of workers with very diverse jobs, which reinforces the possibility of generalization. Certainly, the RRs obtained with regard to occupation were different and could have introduced a possible selection bias that may have affected the representative nature of the sample. However, we would also mention that this does not produce an important reduction in the statistical power for comparing the groups. We found that teaching and research staff were significantly less participative than administration and service personnel and trainees. Nonetheless, all the response rate values obtained from these groups, although low, fell within the range that could be expected when using this data collection procedure^{10,11}. Our opinion is that this pattern of response could be due to differences in the type of burnout mostly present in each occupational category, which follows the line put forward by Montero-Marín et al.⁴ and is in agreement with the results obtained in this study concerning the differences between groups. The fact that teaching and research staff show a greater tendency to suffer from overload may influence their being less participative, owing to the little time they have and their strong focus on accomplishing their own goals. Administration and service personnel, showing a greater tendency to experience lack of development, would appear to be more participative perhaps as this allows them a momentary break from the

Table 18: Descriptive statistics, Cronbach's α and contrasts with regard to sex

		BCSQ-12			MBI-GS		
	(n)	Overload	L. Devel.	Neglect	Exhaustion	Cynicism	Efficacy
Total	826						
Mn		3.47	3.43	2.35	2.24	2.01	4.47
SD		1.42	1.57	1.00	1.42	1.57	0.97
Mdn		3.25	3.25	2.25	2.00	1.50	4.58
Q ₁		2.50	2.25	1.50	1.20	0.75	3.83
Q ₃		4.50	4.50	3.00	3.20	3.00	5.17
min		1.00	1.00	1.00	0.00	0.00	0.00
max		7.00	7.00	6.25	6.00	6.00	6.00
asym ^a		0.34	0.28	0.48	0.71	0.78	-0.72
kurt ^b		-0.50	-0.62	0.06	-0.14	-0.23	0.71
α		0.87	0.89	0.85	0.91	0.92	0.82
Male	366						
Mdn		3.25	3.50	2.25	1.80	1.75	4.50
Q ₁		2.50	2.25	1.50	1.00	1.00	3.83
Q ₃		4.50	4.62	3.00	3.00	3.00	5.17
α		0.86	0.88	0.86	0.91	0.91	0.81
Female	460						
Mdn		3.25	3.25	2.50	2.00	1.50	4.67
Q ₁		2.50	2.25	1.50	1.00	1.00	3.83
Q ₃		4.50	4.25	3.00	3.20	2.94	5.17
α		0.88	0.89	0.84	0.92	0.92	0.83
p^c		0.502	0.082	0.480	0.194	0.108	0.124

Mn = mean. SD = standard deviation. Mdn = median. Q₁ = percentile-25. Q₃ = percentile-75. min = minimum score. max = maximum score. asym = asymmetry. Kurt = kurtosis. α = typical asymmetry error = 0.08. b = typical kurtosis error = 0.17. c = Mann-Whitney contrast.

monotony of their work. The trainees, showing outstandingly low levels of neglect, appear to be a participative group, most likely owing to the nature of their jobs and to their scarce exposure in time to the rigidity of the organizational structure of the institution, which would leave them feeling less worn out. Consequently, the different response rates obtained depending on occupational categories could be explained in relation to the differences between the burnout types encountered. This point gains in importance if we are to obtain representative samples for the calculation of prevalence values for burnout syndrome depending on the different occupational strata⁵. Therefore, this will

have to be taken into account when recruiting participants in future research projects. Finally, the criterion was established from a psychometric level, given the lack of consensus in the contemporary scene from a clinical perspective. As strengths of the study, we would underscore the quality of the data, which was controlled by eliminating the possible errors from the transcription process by means of purpose-designed software. Likewise, the obtention of convergent results between exploratory and confirmatory analyses, carried out on different sub-samples, increases the confidence of our results.

Table 19: Descriptive statistics, Cronbach's α and contrasts with regard to occupation

		BCSQ-12			MBI-GS		
	(n)	Overload	L. Devel.	Neglect	Exhaustion	Cynicism	Efficacy
TRS	372						
Mdn		3.75	3.00	2.25	2.00	1.50	4.50
Q ₁		3.00	1.75	1.50	1.40	0.75	3.83
Q ₃		5.00	4.00	3.00	3.60	3.00	5.00
α		0.87	0.86	0.84	0.92	0.92	0.82
ASP	351						
Mdn		3.00	4.00	2.50	1.80	1.75	4.67
Q ₁		2.25	3.00	1.50	1.00	1.00	4.00
Q ₃		3.50	5.00	3.00	2.80	3.00	5.17
α		0.85	0.90	0.86	0.90	0.91	0.82
TRA	103						
Mdn		3.50	3.00	2.00	2.00	1.50	4.50
Q ₁		2.50	1.75	1.25	1.00	0.75	3.67
Q ₃		5.25	4.00	2.75	3.40	2.75	5.50
α		0.87	0.91	0.86	0.93	0.94	0.85
p ^c		<0.001	<0.001	0.016	0.006	0.305	0.155
TRS vs ASP ^d		<0.001	<0.001	0.322	0.001	0.123	0.056
TRS vs TRA ^d		0.456	0.622	0.023	0.466	0.786	0.344
ASP vs TRA ^d		<0.001	<0.001	0.004	0.202	0.501	0.863

Mn = mean. SD = standard deviation. Mdn = median. Q₁ = percentile-25. Q₃ = percentile-75. min = minimum score. max = maximum score. asym = asymmetry. Kurt = kurtosis. a = typical asymmetry error = 0.08. b = typical kurtosis error = 0.17. c = Mann-Whitney contrast. d = Mann-Whitney contrast. TRS = teaching and research staff. ASP = administration and service personnel. TRA = trainees.

According to social exchange theory, the establishment of reciprocal relations is essential for the health and well-being of individuals. Perception of the lack of reciprocity in a work environment plays a fundamental role in the development of burnout syndrome and increases the risk of individuals suffering from emotional disorders³⁷⁻³⁹. This is due to the imbalance between effort and gratification being an important source of stress⁴⁰. The manifestation of burnout through different clinical subtypes corresponds to coping with feelings of frustration produced through differing levels of commitment³⁻⁸.

Individuals suffering from frenetic burnout experience the feeling of overload when they try to maximize their rewards by taking on a volume and pace of work that become excessive³⁻⁸. This feeling constitutes a classic aetiological factor of burnout^{41,43}, which was observed to be associated with exhaustion in our study. According to Karasek's model, high demands and low autonomy in the workplace increase exhaustion levels and thus the likelihood of developing the syndrome, particularly in workers with poor time management skills and a low level of resources⁴⁴⁻⁴⁶. The frenetic subtype offers a profile of active coping that could benefit from interventions directed at reducing activation, for the purpose of removing accumulated tension and preventing exhaustion; improvement in time management to make room for the total satisfaction of personal needs; and development of self-assertion in order to place limits on the acceptance of responsibilities.

The underchallenged subtype balances rewards by carrying out tasks in a superficial manner, leading to feelings of meaninglessness and lack of personal development in the workplace³⁻⁸. This has an influence on the negative assessment of work conditions⁴⁷, constitutes a risk factor for burnout^{48,49} and has been associated with boredom, indifference and a mechanical performance⁸. It has been associated with cynicism in our study. From a non-linear perspective, Karasek's model explains the origin of feeling of frustration as the absence of challenges resulting from monotony owing to low demands in the workplace⁵⁰. The underchallenged subtype, situated between active and passive coping modes although closer to the latter, may benefit from interventions that encourage interest, satisfaction and personal development through training of conscious attention towards tasks and through the establishment of challenging and significant targets.

The worn-out subtype optimizes rewards by reducing efforts through neglect of responsibilities and chooses this as a consequence of the defencelessness learned in the individual's experience with the organization³⁻⁸. This neglect is the opposite of commitment^{7,51} and is seen in our study to be associated with the

perception of lack of efficacy in the carrying out of tasks. According to Karasek's model, experiences of lack of control play an important part in the health of workers and reduce their productivity^{44,52}, leading to a breaking of an individual's commitment through the erosion they cause in expectations of self-efficacy, given the modulating role these play in the maintenance of behaviours^{53,54}. The worn-out subtype presents a profile of passive coping that could benefit from interventions directed at treatment for despair and increased confidence through the regaining of control and the perception of self-efficacy.

A definition of the syndrome that is able to discriminate the type of experienced burnout by means of the identification of clinical profiles according to a three-dimensional definition, such as that presented in the BCSQ-12, offers understanding into the type of dysfunctional attitudes associated with each case, favouring the development of more specific interventions within a conceptual framework according to the classical perspective. From our point of view, this is due to the fact that the model provided by the BCSQ-12 extends the standard definition of burnout, allowing greater differentiation to be made using clinical subtypes; but at the cost of becoming a little distanced from the core of the syndrome as it has been considered using the classical model. Extra validity will be given to the proposed model through the clinical benefits that this new definition may produce by means of the design of new and more specific interventions for the syndrome.

Our study shows how the BCSQ-12 went further than the standard MBI-GS in characterizing work-related discomfort experienced with regard to occupation. Taking into account the series of inconsistencies presented by the classic standard^{55,56}, the BCSQ-12 may provide a more solid definition of the syndrome at a structural level. The therapeutic interventions derived from the standard model has not produced very promising results to date⁵⁷, perhaps because not enough attention has been given to the matter of the type of dissatisfaction and burnout experienced. Generally speaking, the evidence shows that levels of satisfaction in the workplace have a decisive influence on the health of workers⁵⁸. Future research will need to clarify whether this new perspective will be able to produce more effective interventions for burnout and for the improvement of workers' health status.

Conclusions

Burnout is a state of long-term exhaustion and diminished interest caused by excessive and prolonged stress. Our results provide evidence in favour of the criterial and construct validity of the brief typological definition of burnout

established in the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). This questionnaire has been found to be very useful in evaluating the underlying causes of burnout syndrome, which are vital to know when designing specific interventions and treatment strategies. So, it can be a very useful instrument for future evaluation and also for designing interventions, as it provides an approach to the syndrome focusing on the identification of the type of dissatisfaction and discomfort experienced.

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Chapter 6

Explanatory power of two models of burnout types*

"It was amazing the way his face changed, beyond recognition, when he was alone! The muscles of his mouth and cheeks, always disciplined and forced to be steady in the interest of a relentless effort of will, relaxed and became completely flaccid. That expression of liveliness, tolerance, kindness and energy was no more than an artificial grimace. He got rid of his face as if it was a mask leaving it tortured and exhausted; his eyes, apathetic and brightless, reddened and began to tear, and he, without even try to fool himself, kept in his mind only one of the many messed-up and heavy ideas that tormented him day and night: the idea of being an exhausted man at his forty-two years old".

(Thomas Mann, Los Buddenbrook, 1901)

* Montero-Marín J, et al.: Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types. *BMC Public Health* 2012, 12:922.

Abstract

Background

The classic determination of burnout is by means of the dimensions 'exhaustion', 'cynicism' and 'inefficacy'. A new definition of the syndrome is based on clinical subtypes, consisting of 'frenetic' (involved, ambitious, overloaded), 'underchallenged' (indifferent, bored, with lack of personal development) and 'worn-out' (neglectful, unacknowledged, with little control). The dimensions of overload, lack of development and neglect form a shortened version of this perspective. The aims of this study were to estimate and to compare the explanatory power of both typological models, short and long, with the standard measurement.

Methods

This was a cross-sectional survey with a randomly sample of university employees ($n = 409$). Multivariate linear regression models were constructed between the 'Maslach Burnout Inventory General Survey' (MBI-GS) dimensions, as dependent variables, and the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36 and BCSQ-12) dimensions, as independent variables.

Results

The BCSQ-36 subscales together explained 53% of exhaustion ($p < 0.001$), 59% of cynicism ($p < 0.001$) and 37% of efficacy ($p < 0.001$), while BCSQ-12 subscales explained 44% of exhaustion ($p < 0.001$), 44% of cynicism ($p < 0.001$), and 30% of efficacy ($p < 0.001$). The difference in the explanatory power of both models was significant for exhaustion ($p < 0.001$), and for cynicism ($p < 0.001$) and efficacy ($p < 0.001$).

Conclusions

Both BCSQ-36 and BCSQ-12 demonstrate great explanatory power over the standard MBI-GS, while offering a useful characterization of the syndrome for the evaluation and design of interventions tailored to the characteristics of each individual. The BCSQ-36 may be very useful in mental health services, given that it provides a good deal of information, while the BCSQ-12 could be used as a screening measure in primary care consultations owing to its simplicity and functional nature.

Background

Rationalization in production systems has led to significant transformations in the structure of the economic sector in modern societies. New features of the labour market, such as the more unstable nature of recruitment and work contracts, may have contributed to the increased vulnerability of workers to stress, with serious consequences to their health¹. In fact, between 50% and 60% of sick leave taken in the European Union (EU) is caused by work-related stress, and the economic cost to the EU amounts to about 20 billion euros². Currently, one of the most significant work-related problems resulting from stress is burnout syndrome, which causes considerable social and economic losses³.

Burnout poses a psychosocial risk with negative consequences both for subjects suffering from it and the organizations for which they work. It can affect an individual's physical and/or mental health, giving rise to psychosomatic disorders such as cardio-respiratory alterations severe headaches, gastritis, ulcers, insomnia, dizziness, etc., or psychopathological disorders such as anxiety, obsession-compulsion, interpersonal sensitivity, depression, hostility, paranoid ideation, alcoholism and addictions. For organizations, it can lead to serious reduction in performance and productivity, deterioration in customer service, excessive rotations and absenteeism, and can even lead to employees leaving their jobs⁴.

According to the most widely-used definition proposed by Maslach, Schaufeli and Leiter⁵, this syndrome includes the dimensions of exhaustion, cynicism and professional inefficacy, and is the result of prolonged exposure to chronic stressors in the workplace. According to this model, 'exhaustion' is the feeling of not being able to offer any more of oneself at an emotional level; 'cynicism' represents a distant attitude towards work, those served by it, and other colleagues; and 'inefficacy' as the feeling of not performing tasks adequately or being incompetent at work^{5,6}. This emphasis on aspects of the individual symptoms imposed by the classic approach has not encouraged the development of intervention programmes with positive long and medium-term results on individuals and organizations overall⁷⁻⁹. Later approaches based on this classic model have allowed distinctions to be made with respect to how this syndrome presents depending on the presence or absence of psychological symptoms, such as guilt¹⁰, which has opened up the possibility of dealing with the disorder from the perspective of individual differences.

Nevertheless, when studying burnout syndrome, and in order to achieve an comprehensive understanding of this phenomenon, we should take into consideration the way in which subjects are affected by environmental stressors¹¹.

In other words, we need to assess the characteristics of both individuals and their environment, given that burnout should be understood not as a purely intrapsychic phenomenon, but as the result of a social practice, in a cultural, economic and political context¹². In this regard, a definition of the syndrome that is well integrated on a psychosocial level, such as that provided by social exchange theory, could facilitate the design of holistic intervention programmes to a greater degree. According to the social exchange theory, burnout seems to be strongly influenced by a perception of lack of reciprocity in social exchange relationships¹³. The perception of an imbalance between efforts-rewards is an important source of stress at work¹⁴ and can be seen as a determinant risk factor for the development of burnout symptoms^{15,16}.

Clinical experience suggests different ways for the disorder to become manifest. As Faber proposed, from a phenomenological orientation framed within the viewpoint of the exchange¹⁷⁻²³, burnout has been described as an experience where workers sense a strong feeling of discontentment owing to the discrepancy between their personal contributions and the gratification obtained in return. The level of dedication given to the job-related tasks that provoke such feelings of frustration could determine the development of different burnout subtypes. Consequently, the degree of dedication to job-related tasks forms a classification criterion that is able to integrate a new conceptual framework for the development of burnout by means of subtypes: 'frenetic' (high dedication or active coping style), 'underchallenged' (intermediate dedication) and 'worn-out' (low dedication or passive coping style)^{23-25,27}. This new perspective of the specific development course of the syndrome, has been put forward as the result of a detailed clinical observations and systemized by means of analysis of the qualitative content. It has also been operationally defined in quantitative terms through the 'Burnout Clinical Subtype Questionnaire' or BCSQ-36. The validity of the content of this instrument is based on the experiences reported by patients affected by the syndrome. The factorial structure and internal consistency of the BCSQ-36 has been tested with good results²⁵. This new model has also been presented in a short form as the BCSQ-12, with satisfactory results related to construct validity and predictive capacity in samples of both workers²⁸ and students²⁹. Table 20 gives the dimensions of burnout in the classic or standard perspective provided by the 'Maslach Burnout Inventory General Survey' (MBI-GS) as well as the properties of the typological model, as seen in the BCSQ-36 and BCSQ-12.

Subjects classified as the frenetic subtype work increasingly harder, to the point of exhaustion, in search of success. These are highly involved, ambitious

Table 20: Burnout according to the MBI-GS, BCSQ-36 and BCSQ-12 models

MBI-GS	BCSQ-36	BCSQ-12
Exhaustion	Frenetic	Overload
	<i>Overload</i>	
	<i>Ambition</i>	
	<i>Involvement</i>	
Cynicism	Underchallenged	L. Development
	<i>L. Development</i>	
	<i>Indifference</i>	
	<i>Boredom</i>	
Inefficacy	Worn-out	Neglect
	<i>Neglect</i>	
	<i>L. Acknowledgement</i>	
	<i>L. Control</i>	

MBI-GS = Maslach Burnout Inventory General Survey. BCSQ-36 = Burnout Clinical Subtype Questionnaire in its long version. BCSQ-12 = Burnout Clinical Subtype Questionnaire in its short version.

and overloaded workers, who invest a great deal of time in their work. 'Involvement' is the investment of every effort required to overcome difficulties; 'ambition' is a great need to obtain important success and achievements at work; and 'overload' is risking one's own health and neglecting of one's own personal life in the pursuit of good results. The frenetic burnout subtype feels stressed as a result of overload, mainly owing to the subject's excessive involvement and ambition. These characteristics act as significant predictors of burnout in the classic sense of the word, given that in order to burn out, one would have to "be set alight"^{4,17,21,24-27}. Workers developing the underchallenged burnout subtype have to cope with monotonous and unstimulating conditions that fail to provide the necessary satisfaction. They feel limited by their type of work, and feel indifferent and bored; feelings which do not encourage personal development in their jobs. 'Indifference' is lack of concern, interest and enthusiasm in work-related tasks; 'boredom' is caused by the understanding of work as a mechanical and routine experience with little variation in activities; and 'lack of development' is the absence of personal growth experiences for individuals together with their desire for taking on other jobs where they can better develop their skills. The underchallenged burnout subtype has lost all enthusiasm for work, leading the subject to carry out tasks with indifference. This is the result of stress caused by boredom and the lack of personal development, properties that are important

antecedents of the syndrome and which are seen as a particular form of antecedent^{17,21,24-27,36}. Workers presenting the worn-out subtype give up when faced with stress or absence of gratification. They are negatively influenced by the effect accumulated over time related to the rigidity of the organizational structure of their employing institution, and show feelings of lack of control. They feel there is lack of acknowledgement of their efforts, leading them to neglect their responsibilities. 'Lack of control' is the feeling of helplessness as a result of dealing with many situations that are beyond their control; 'lack of acknowledgement' is the belief that the organizations those individuals work for fail to take their efforts and dedication into account; and 'neglect' refers to individuals' disregard as a response to any difficulty. The worn-out subtype deals with work-related responsibilities with certain neglect, as a way in which the subject passively copes with the stress of experiencing lack of control in his/her work and the absence of acknowledgement for efforts, experiences that have been described as important predictors for the syndrome^{16,17,21,24-27}. In general terms, the characteristics of the subtypes are modifiable properties that contribute to the differential development of the disorder and provide us with an idea of how the environmental conditions of the workplace contribute to the development of the syndrome when affecting as stressors.

This typological approach contrasts with the traditional definition, which is more orientated towards offering an unitary (albeit three-dimensional) definition of the syndrome, with more or less consistent aetiology and symptoms^{5,6}. In turn, the typological approach is distinguished by the possibility it offers when it comes to identifying the different ways on which the disorder is manifested, enabling their evaluation and the development of interventions adjusted to the particular medical history of each case^{25,27-29}. The rationale for this is not to differentiate between clinical and non-clinical cases of burnout; rather, this approach provides information related to the relevant characteristics from a clinical perspective, seeing as they have been referred to spontaneously during the course of therapy as sources of psychological distress¹⁷⁻²⁴.

The frenetic profile is associated with the classic dimension of exhaustion, which is understandable if we consider the excessive workload experienced by this highly dedicated type of subject^{4,18,30-33}, for which it was established that the dimensions that characterize this profile (involvement, ambition and overload) could contribute to a greater extent than the others in the explanation of exhaustion. The underchallenged profile is related to the classic dimension of cynicism, possibly owing to the subject's lack of enthusiasm resulting from their negative appraisal of their work conditions^{30,34-37}, for which it was established that

the dimensions characterizing this profile (indifference, boredom and lack of development) could contribute to a greater extent than the others in explaining cynicism. The worn-out profile is associated with the classic dimension of inefficacy, probably owing to subjects' apathy and lack of commitment^{25,30,38-39}, accentuated by experiences of lack of control and lack of acknowledgement^{40,43}, for which it was established that the dimensions that characterize it (neglect, lack of control and lack of acknowledgement) could contribute to a greater extent than the others in explaining inefficacy. Finally, owing to the fact that the long BCSQ-36 model includes a larger number of factors than the short BCSQ-12 (only consisting of the dimensions of overload, lack of development and neglect), it was established that the explanatory power of BCSQ-36 could be greater than that of BCSQ-12 in relation to the standard dimensions of exhaustion, cynicism and inefficacy.

The aim of this work was to estimate and compare the explanatory power of the new typological perspective of burnout through its long and short versions with the standard model, assessing the individual contribution from the properties making up both typological models. Shedding light on these points may contribute to the establishment of their possible differential usefulness, providing understanding of the process by which the syndrome develops by means of the different burnout profiles.

Methods

Study Design

We used a cross-sectional design to conduct an online self-assessment survey completed by participants who had previously given their informed consent.

Participants

The study population consisted of all employees of the University of Zaragoza working in January 2008 (N=5,493), in order to make up a multi-occupational group in jobs of a very different nature. These workers form a population at risk from developing burnout, as they consist of professionals working face to face with other people⁴. The required sample size was calculated so as to be able to make estimates with a 95% confidence level, 3.5% margin for error and assuming an 18% prevalence of burnout⁴⁴, resulting in a need of sample of 427 subjects. On previous web-mail surveys the response rate was

roughly 27%^{45,46}. Therefore, 1,600 subjects were selected by means of random stratified sampling with proportional allocation depending on occupation (58% teaching and research staff, from now on referred to as 'TRS', 33% administration and service personnel, from now on referred to as 'ASP', and 9% grant holders, from now on referred as 'GRH') from an alphabetical list of the entire workforce. Sample size calculation and random sampling were performed with Epidat 3.1 software.

Procedure

In February 2008 an e-mail was sent to the selected subjects explaining the aims of the research. This message contained a link to the online questionnaire and access passwords for subjects to complete the questionnaire. All participants received an anonymous report with an explanation of their results. The project was approved by the regional Clinical Research Ethics Committee of Aragon.

Measurements

Sociodemographic and occupational characteristics

Subjects were first asked to complete a series of specifically-prepared questions related to general sociodemographic and occupational characteristics. The questionnaire collected information on the variables: age, gender, stable relationship ('yes' vs. 'no'), children ('yes' vs. 'no'), level of education ('secondary or lower', 'university', 'doctorate'), occupation ('TRS', 'ASP', 'GRH'), number of hours worked per week ('< 35', '35-40', '> 40'), length of service ('< 4 years', '4-16 years', '> 16 years'), monthly income ('< €1,200', '€1,200-2,000', '> €2,000'), sick leave taken in the previous year ('yes' vs. 'no'), contract duration ('permanent' vs. 'temporary') and contract type ('full time' vs. 'part time').

Standard burnout

Subjects were presented with the MBI-GS⁶ in its validated Spanish language version⁴⁷. This adaptation (Annexes 7 and 8) consists of 15 items grouped into three dimensions: exhaustion, cynicism and efficacy. Responses were arranged in a Likert-type scale with 7 response options, scored from 0 ('never') to 6 ('always'). The exhaustion dimension consists of 5 items (e.g. "I feel emotionally drained from my work"), the cynicism dimension consists of 4 items (e.g. "I've become more callous toward people since I took this job") and the efficacy dimension consists of 5 items (e.g. "I deal very effectively with the problems of

my work"). The results of each of the dimensions were presented as scaled scores. Both the factorial validity of the MBI-GS and internal consistency of the dimensions comprising it were adequate⁴⁷.

Burnout subtypes

They were then asked to complete the BCSQ-36¹⁹ in its Spanish language version²¹. This questionnaire (Annexes 1 and 2) consists of 36 items evenly distributed into 3 scales and 9 subscales (comprising 4 items in each). The frenetic scale assessed the involvement (e.g. "I react to difficulties in my work with greater participation"), ambition (e.g. "I have a strong need for important achievements in my work") and overload (e.g. "I overlook my own needs in order to fulfil work demands") dimensions; the underchallenged scale consisted of the indifference (e.g. "I feel indifferent about my work and have little desire to succeed"), lack of development (e.g. "My work doesn't offer me opportunities to develop my abilities") and boredom (e.g. "I feel bored at work") dimensions; and the worn-out scale enquired about the neglect (e.g. "When things at work don't turn out as well as they should, I stop trying"), lack of acknowledgement (e.g. "I think my dedication to my work is not acknowledged") and lack of control (e.g. "I feel the results of my work are beyond my control") dimensions. This questionnaire also includes the short version, BCSQ-12²², made up of 12 items consisting solely of the dimensions overload, lack of development and neglect (Annexes 3 and 4). Subjects had to indicate the degree of agreement with each one of the statements presented according to a Likert-type scale with 7 response options, scored from 1 ('totally disagree') to 7 ('totally agree'). The scores from each of the dimensions were presented as a sum of its constituent items divided by the number of items (scaled score). The factorial validity of the BCSQ-36 and BCSQ-12 presented consistent results, with $\alpha \geq 0.80$ reliability in each of their constituent dimensions^{19,22}.

Data analysis

A descriptive analysis was made of participants' sociodemographic and occupational characteristics, using means and percentages according to the nature of the variables.

The explanatory power of the the BCSQ-36 and BCSQ-12 in relation to the standard MBI-GS was assessed by means of the construction of multiple linear regression models. For this purpose, the MBI-GS subscales exhaustion, cynicism and efficacy were considered variable dependents, while the BCSQ-36 subscales

of involvement, ambition, overload, indifference, lack of development, boredom, neglect, lack of acknowledgement and lack of control and the BCSQ-12 subscales of overload, lack of development and neglect were considered independent variables. Six models in total were consequently constructed.

The predictive capacity of those models was examined taking into account standard errors (Se) and evaluating goodness of fit by means of analysis of variance associated with the regression analysis, through the calculation of the significance of the F value (df_1 / df_2). Multiple correlation coefficients ($R_{y,123}$) were calculated to quantify the degree of association between each dependent variable and the independent variables taken as a set. Multiple determination coefficients ($R^2_{y,123}$) and adjusted multiple determination coefficients ($adj-R^2_{y,123}$) were also calculated to evaluate and compare the explanatory capacity of the BCSQ-36 and BCSQ-12. Greater confidence was given to the $adj-R^2_{y,123}$ coefficient as it was the best estimator for the percentage of explained variance, and given that this coefficient takes into account the number of variables included in the equation, which enabled the incidence of accumulated random effects to be counteracted, making this particularly adequate when it came to comparing the predictive capacity of different models^{48,49}. The result of those comparisons was assessed, with estimation of the significance of the F value associated with the increase in the adjusted multiple coefficient of determination ($\Delta adj-R^2_{y,123}$), when going from the short model provided by BCSQ-12 to the long model proposed by BCSQ-36. The 'raw' relationship of each independent variable with each dependent variable was calculated by applying Pearson's r correlation coefficient. The correlations between all the subscales were generally shown through the calculation of this coefficient. The individual contribution of the independent variables in each multivariate model was estimated by means of the calculation of slopes (B), their standard errors and 95% confidence interval (95% CI), and of the standardized slope coefficients (Beta). Partial correlation coefficients ($R_{y3.12}$) were also calculated, indicating the correlation between two variables when the effect of the other variables included in the equation is removed. Semi-partial correlation coefficients ($R_{y(3.12)}$) were also calculated, the square of which shows the increase in the coefficient of determination after including a specific variable in a model, partializing the influence of the other included variables. The Wald test was used to evaluate the statistical significance of the contribution of each variable to each multivariate model.

Tolerance (T) values were calculated in order to rule out possible collinearity errors. These means represent the percentage of each variable that is not explained by the remaining variables; high scores suggest that the variables are

independent and help avoid mistaken estimations in the coefficients. The Kolgorov-Smirnov test (KS test) was used to determine whether the distribution of the residuals was both approximately normal and met the assumption of the normality and linearity of the conditional distribution. Finally, it was confirmed that the Durbin-Watson values (DW) approached a value $DW = 2.00$ in order to rule out autocorrelation problems in the errors^{48,49}.

All the tests were bilateral and were performed with a significance level of $\alpha < 0.05$. Data analysis was conducted with the SPSS-15 and Epidat 3.1 statistical software packages.

Results

Sample characteristics

There were 409 respondents, representing a response rate (RR) of 25.6%. RR were distributed as follows: 19.3% 'TRS', 36.5% 'ASP', 25.8% 'GRH' ($p < 0.001$). The mean age of participants was 40.51 years ($SD = 9.09$), with 44.4% males. The majority (78.1%) were in a stable relationship and 49.9% had children. 15.5% had achieved secondary or lower schooling, 52.1% had university degrees and 32.4% held doctorates. In terms of job position, 42.9% were 'TRS', 46.9% were 'ASP' and 10.2% were 'GRH'. 40.6% of the participants worked '< 35 hours per week', 26.8% worked '35-40 hours' and 32.6% worked '> 40 hours'. In terms of length of employment, 18.5% had been working at the university for 'less than 4 years', with 44.6% working 'between 4 and 16 years' and 36.9% for 'more than 16 years'. The income distribution was as follows: 31.1% had a monthly income of 'less than €1,200', with 42.1% earning '€1,200-2,000' and 26.8% 'more than €2,000'. 67% of the participants had not taken sick leave in the previous year. 63.6% were permanent employees and the majority (93.8%) worked full time.

Descriptive statistics, Cronbach's alpha and correlations

The BCSQ-36/BCSQ-12 subscales showed the following descriptive results: involvement $Md = 4.92$ ($SD = 0.84$), ambition $Md = 3.91$ ($SD = 1.20$), overload $Md = 3.53$ ($SD = 1.29$), indifference $Md = 2.58$ ($SD = 1.20$), boredom $Md = 3.04$ ($SD = 1.40$), lack of development $Md = 3.73$ ($SD = 1.37$), lack of control $Md = 4.44$ ($SD = 1.17$), lack of acknowledgement $Md = 4.42$ ($SD = 1.42$) and neglect $Md = 2.52$ ($SD = 0.90$). The MBI-GS provided the following descriptive results:

Table 21: Matrix of correlations and internal consistency for the BCSQ-36, BCSQ-12 and MBI-GS subscales

	1	2	3	4	5	6	7	8	9	10	11	12
MBI												
1. Exhaustion	(0.92)											
2. Cynicism	0.63***	(0.92)										
3. Efficacy	-0.30***	-0.44***	(0.82)									
BCSQ												
4. Overload	0.57***	0.22***	-0.09	(0.86)								
5. Ambition	0.08	-0.08	0.26***	0.31***	(0.89)							
6. Involvement	-0.14**	-0.35***	0.45***	0.12*	0.34***	(0.80)						
7. L. Development	0.38***	0.60***	-0.22***	0.16**	<0.01	-0.24***	(0.88)					
8. Indifference	0.40***	0.65***	-0.49***	0.09	-0.18**	-0.50***	0.57***	(0.88)				
9. Boredom	0.25***	0.49***	-0.32***	0.03	-0.14**	-0.39***	0.64***	0.69***	(0.92)			
10. Neglect	0.32***	0.43***	-0.55***	0.10*	-0.20***	-0.65***	0.28***	0.66***	0.47***	(0.86)		
11. L. Acknowled.	0.49***	0.59***	-0.23***	0.32***	<0.01	-0.16**	0.61***	0.40***	0.36***	0.25***	(0.88)	
12. L. Control	0.59***	0.53***	-0.29***	0.43***	0.09	-0.13*	0.41***	0.35***	0.21***	0.27***	0.57***	(0.81)

Variables 4-12 comprise the long version BCSQ-36. Variables 4, 7 and 10 (italics) comprise the short version BCSQ-12. α values in brackets in the diagonal. *** p < 0.001; ** p < 0.01; * p < 0.05 (bilateral).

exhaustion $Md = 2.39$ ($SD = 1.42$), cynicism $Md = 2.07$ ($SD = 1.59$) and efficacy $Md = 4.45$ ($SD = 1.01$). Table 21 shows the internal consistency obtained by the variables under study in this work, all with values $\alpha \geq 0.80$. Table 21 also presents the r values for the raw or bivariate correlation between all the variables. As can be observed, all the BCSQ-36/BCSQ-12 dimensions showed significant associations with some of the standard dimensions of MBI-GS, most of which were moderately high.

Regression analysis

As seen in Tables 22, 23 and 24 the explanatory power of all models was reasonably high. The best explained dimension was cynicism, of which approximately 59% was captured by the BCSQ-36, and the worst explained was efficacy, of which 30% was captured by BCSQ-12. Compared to the BCSQ-12, the BCSQ-36 explained 9% more exhaustion ($\Delta\text{-adj-R}^2_{y,123} = 0.09$; $F = 13.46$; $df_1 = 6 / df_2 = 387$; $p < 0.001$), 15% more cynicism ($\Delta\text{-adj-R}^2_{y,123} = 0.15$; $F = 24.53$; $df_1 = 6 / df_2 = 387$; $p < 0.001$) and 7% more efficacy ($\Delta\text{-adj-R}^2_{y,123} = 0.07$; $F = 7.66$; $df_1 = 6 / df_2 = 387$; $p < 0.001$).

The fit of the multivariate linear regression models, evaluated by means of variance analysis, was statistically significant in all cases ($p < 0.001$), with low standard error values (< 1.20). DW values were all adequate (≈ 2.00), ruling out self-correction problems in errors. Residual distribution was approximately normal in all cases, except for the BCSQ-12 model in cynicism, which, nonetheless, showed a value that was very close to the criterion ($p = 0.048$), making it generally possible to accept reasonably well the basic assumptions needed to go ahead with the regression legitimately.

Tables 22, 23 and 24 show the regression coefficients for all the models. As can be observed, the BCSQ-36 variables that contributed significantly to explaining exhaustion were overload (Beta = 0.40; $p < 0.001$), lack of control (Beta = 0.27; $p < 0.001$), indifference (Beta = 0.21; $p < 0.001$) and lack of acknowledgement (Beta = 0.12; $p = 0.020$); those explaining cynicism were indifference (Beta = 0.40; $p < 0.001$), lack of acknowledgement (Beta = 0.22; $p < 0.001$), lack of control (Beta = 0.19; $p < 0.001$) and lack of development (Beta = 0.17; $p = 0.001$); and those explaining efficacy were neglect (Beta = -0.29; $p < 0.001$), indifference (Beta = -0.20; $p = 0.003$), ambition (Beta = 0.16; $p < 0.001$), lack of control (Beta = -0.15; $p = 0.006$) and involvement (Beta = 0.12; $p = 0.035$).

The BCSQ-12 variables explaining exhaustion were overload (Beta = 0.51; $p < 0.001$), lack of development (Beta = 0.24; $p < 0.001$), neglect (Beta = 0.20; $p < 0.001$); those explaining cynicism were lack of development (Beta = 0.51; $p < 0.001$), neglect (Beta = 0.28; $p < 0.001$), overload (Beta = 0.11; $p < 0.001$); while efficacy was only explained by neglect (Beta = -0.53; $p < 0.001$). The T values of variables were higher in the models developed from BCSQ-12 (> 0.90) than in those from BCSQ-36 (0.34-0.80), meaning that they were models with less redundant variables for information purposes. Standard errors from slopes were low in all cases (< 0.10). All intercepts were significant.

Table 22: Regression coefficients for the BCSQ-36 and BCSQ-12 models with regard to the 'exhaustion' dimension of the MBI-GS

model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-36	0.74	0.54	0.53	51.01 (9 / 387)	<0.001	0.98	1.82	0.604
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)		Se	Beta	p^c
<i>Intercept</i>				-1.83 (-2.91 – -0.76)		0.55		0.001
Involvem.	<0.01	<0.01	0.51	<0.01 (-0.16 – 0.16)		0.08	<0.01	0.971
Ambition	-0.04	-0.03	0.80	-0.03 (-0.12 – 0.06)		0.05	-0.03	0.475
Overload	0.44	0.34	0.70	0.44 (0.35 – 0.53)		0.05	0.40	<0.001
Indifferen.	0.18	0.12	0.34	0.25 (0.11 – 0.39)		0.07	0.21	<0.001
L. Develop.	0.04	0.03	0.39	0.04 (-0.07 – 0.15)		0.06	0.04	0.459
Boredom	-0.06	-0.04	0.41	-0.06 (-0.17 – 0.05)		0.06	-0.06	0.249
Neglect	0.05	0.03	0.40	0.09 (-0.08 – 0.26)		0.09	0.06	0.317
L. Acknowl.	0.12	0.08	0.49	0.12 (0.02 – 0.21)		0.05	0.12	0.020
L. Control	0.29	0.20	0.57	0.33 (0.22 – 0.44)		0.06	0.27	<0.001
model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-12	0.67	0.45	0.44	105.96 (3 / 393)	<0.001	1.06	1.87	0.177
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)		Se	Beta	p^c
<i>Intercept</i>				-1.34 (-1.78 – -0.89)		0.23		<0.001
Overload	0.56	0.51	0.97	0.57 (0.48 – 0.65)		0.04	0.51	<0.001
L. Develop.	0.29	0.23	0.91	0.25 (0.17 – 0.33)		0.04	0.24	<0.001
Neglect	0.25	0.20	0.92	0.32 (0.20 – 0.44)		0.06	0.20	<0.001

$R_{y,123}$ = multiple correlation coefficient. $R^2_{y,123}$ = coefficient of multiple determination. adj- $R^2_{y,123}$ = adjusted coefficient of multiple determination. p^a = p value for variance analysis associated with the regression. Se = standard error. DW = Dubin-Watson value. p^b = p value for K-S test for normality contrast on residuals. $R_{y3,12}$ = partial correlation coefficient. $R_{y(3,12)}$ = semi-partial correlation coefficient. T = tolerance value. B = regression slope. CI = confidence interval. Beta = standardized slope. p^c = p value of Wald test result. The sign $<$ refers to absolute values.

Table 23: Regression coefficients for the BCSQ-36 and BCSQ-12 models with regard to the 'cynicism' dimension of the MBI-GS

model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-36	0.77	0.60	0.59	64.43 (9 / 387)	<0.001	1.02	2.04	0.211
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)	Se	Beta	p^c	
<i>Intercept</i>				-1.21 (-2.33 – -0.08)	0.57			0.036
Involvem.	-0.10	-0.06	0.51	-0.16 (-0.33 – 0.01)	0.09	-0.08		0.059
Ambition	-0.03	-0.02	0.80	-0.03 (-0.12 – 0.07)	0.05	-0.02		0.560
Overload	0.03	0.02	0.70	0.03 (-0.07 – 0.12)	0.05	0.02		0.549
Indifferen.	0.34	0.23	0.34	0.53 (0.39 – 0.68)	0.07	0.40		<0.001
L. Develop.	0.17	0.11	0.39	0.20 (0.08 – 0.32)	0.06	0.17		0.001
Boredom	-0.03	-0.02	0.41	-0.04 (-0.15 – 0.08)	0.06	-0.03		0.501
Neglect	-0.04	-0.02	0.40	-0.07 (-0.24 – 0.11)	0.09	-0.04		0.465
L. Acknowl.	0.24	0.16	0.49	0.25 (0.15 – 0.36)	0.05	0.22		<0.001
L. Control	0.22	0.14	0.57	0.26 (0.14 – 0.37)	0.06	0.19		<0.001
model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-12	0.67	0.45	0.44	106.12 (3 / 393)	<0.001	1.19	2.00	0.048
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)	Se	Beta	p^c	
<i>Intercept</i>				-1.83 (-2.33 – -1.34)	0.25			<0.001
Overload	0.14	0.11	0.97	0.13 (0.04 – 0.22)	0.05	0.11		0.005
L. Develop.	0.55	0.48	0.91	0.59 (0.50 – 0.68)	0.05	0.51		<0.001
Neglect	0.34	0.27	0.92	0.49 (0.35 – 0.63)	0.07	0.28		<0.001

$R_{y,123}$ = multiple correlation coefficient. $R^2_{y,123}$ = coefficient of multiple determination. adj- $R^2_{y,123}$ = adjusted coefficient of multiple determination. p^a = p value for variance analysis associated with the regression. Se = standard error. DW = Dubin-Watson value. p^b = p value for K-S test for normality contrast on residuals. $R_{y3,12}$ = partial correlation coefficient. $R_{y(3,12)}$ = semi-partial correlation coefficient. T = tolerance value. B = regression slope. CI = confidence interval. Beta = standardized slope. p^c = p value of Wald test result. The sign < refers to absolute values.

Discussion

This study evaluated the explanatory power of an operationalized typological definition for burnout syndrome using the 'Burnout Clinical Subtype Questionnaire', in its long (BCSQ-36) and short (BCSQ-12) versions^{19,22}, regarding the standard offered by MBI-GS^{6,47}. Multiple regression analysis enabled us to see that the dimensions of the MBI-GS were captured by the BCSQ-36 and BCSQ-12 subscales, with an adequate fit. Moreover, the distribution of residuals was approximately normal and no autocorrelation problems were detected.

Table 24: Regression coefficients for the BCSQ-36 and BCSQ-12 models with regard to the 'efficacy' dimension of the MBI-GS

model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-36	0.62	0.38	0.37	26.73 (9 / 387)	<0.001	0.81	1.98	0.151
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)		Se	Beta	p^c
<i>Intercept</i>				4.99 (4.11 – 5.88)		0.45		<0.001
Involvem.	0.11	0.09	0.51	0.14 (0.01 – 0.28)		0.07	0.12	0.035
Ambition	0.18	0.14	0.80	0.14 (0.06 – 0.21)		0.04	0.16	<0.001
Overload	-0.06	-0.05	0.70	-0.05 (-0.12 – 0.03)		0.04	-0.06	0.232
Indifferen.	-0.15	-0.12	0.34	-0.17 (-0.29 – -0.06)		0.06	-0.20	0.003
L. Develop.	0.05	0.04	0.39	0.05 (-0.05 – 0.14)		0.05	0.06	0.346
Boredom	0.02	0.02	0.41	0.02 (-0.07 – 0.11)		0.05	0.03	0.690
Neglect	-0.23	-0.18	0.40	-0.33 (-0.47 – -0.19)		0.07	-0.29	<0.001
L. Acknowl.	<-0.01	<-0.01	0.49	<-0.01 (-0.08 – 0.08)		0.04	<-0.01	0.974
L. Control	-0.14	-0.11	0.57	-0.13 (-0.22 – -0.04)		0.05	-0.15	0.006
model/variab.	$R_{y,123}$	$R^2_{y,123}$	adj- $R^2_{y,123}$	F (df ₁ / df ₂)	p^a	Se	DW	p^b
BCSQ-12	0.56	0.31	0.30	58.88 (3 / 393)	<0.001	0.85	1.99	0.062
	$R_{y3,12}$	$R_{y(3,12)}$	T	B (95% CI)		Se	Beta	p^c
<i>Intercept</i>				6.21 (5.86 – 6.56)		0.18		<0.001
Overload	-0.04	-0.03	0.97	-0.02 (-0.09 – 0.42)		0.03	-0.03	0.480
L. Develop.	-0.07	-0.06	0.91	-0.05 (-0.11 – 0.02)		0.03	-0.06	0.145
Neglect	-0.52	-0.51	0.92	-0.60 (-0.69 – -0.50)		0.05	-0.53	<0.001

$R_{y,123}$ = multiple correlation coefficient. $R^2_{y,123}$ = coefficient of multiple determination. adj- $R^2_{y,123}$ = adjusted coefficient of multiple determination. p^a = p value for variance analysis associated with the regression. Se = standard error. DW = Dubin-Watson value. p^b = p value for K-S test for normality contrast on residuals. $R_{y3,12}$ = partial correlation coefficient. $R_{y(3,12)}$ = semi-partial correlation coefficient. T = tolerance value. B = regression slope. CI = confidence interval. Beta = standardized slope. p^c = p value of Wald test result. The sign < refers to absolute values.

As limitations, we should not overlook the fact that participant assessments were self-reported, and therefore may be weakened by socially desirable responses. Equally, the response rate obtained may seem low, although these values were similar to those found in other studies using similar on-line data collection procedures^{45,46}, and they enabled a sample size to be obtained that was not far off that initially estimated to be necessary, contributing evidence in relation to the aims originally set out. It should be pointed out that the distribution of the response rate was uneven for occupational strata, which could lessen the generalizability of our results. Finally, test-retest measurements were not taken for the variables under study, and therefore this aspect of their

reliability could not be quantified. Nevertheless, we consider that the strength of this study lies in the work carried out with a broad and multi-occupational sample of employees in at-risk occupations with face-to-face personal contacts, in jobs with very different characteristics, which allows our conclusions to be generalized. Additionally, data quality was controlled by eliminating possible errors in the questionnaire transcription process through the use of purpose-designed software.

As we have explained previously, BCSQ-36 and BCSQ-12 were able to explain a high proportion of the variability contained in the criterion dimensions of the standard MBI-GS, although they were significantly higher in BCSQ-36, as we had established initially as a working hypothesis. All the dimensions of both typological models showed adequate internal consistency, and were significantly associated with some of the criterion dimensions of the standard on an individual basis. On the whole, the dimensions of the long and short typological models contributed to the explanation of each of the classic dimensions according to the proposed hypothesis, given that the frenetic profile presented the dimension that contributed most to the explanation of exhaustion, as did the underchallenged profile with cynicism and the worn-out profile with efficacy. However, as can be seen, the pattern of contributions obtained was somewhat more complex than initially expected.

First, overload and lack of control were the dimensions that basically explained exhaustion, something that is coherent with the Karasek's demand-control model⁵⁰, according to which psychological strain is caused by the combination of high demands and low control. This result is also in line with the areas of worklife model⁵¹, according to which workload and lack of control are important correlates of the syndrome, and with the more recent demands-resources model⁵², in which personal resources are more important when coping with work-related demands. All of this is congruent with the process of stress caused by lack of control over results and over decision-making, with the association established between excess work and the appearance of fatigue and low levels of empathy, and with the development of emotional disorders caused by chronic stress⁵³⁻⁵⁸. We see that lack of control contributed to the explanation of all the criterion dimensions, and that it can therefore be accepted as a key dimension when it comes to explaining the development of burnout symptoms in general, although it was in fact more strongly correlated with exhaustion.

On the other hand, lack of development and indifference were the dimensions that most contributed to explaining the criterion dimension of cynicism. Using Karasek's framework with non-linear effects as proposed in a

previous study⁵⁹, a manner of interpreting these results is that just as high demands may be overwhelming, or “toxic” to use Warr’s word⁶⁰, low demands may also be so unchallenging as to create feelings of frustration and monotony. This perspective is also included in the model by Schwab, Jackson and Schuler³⁷, which considers monotony to be an antecedent for the syndrome. Moreover, the indifference variable contributed significantly to the explanation of all criterion dimensions, and therefore may be another key dimension for explaining the development of syndrome symptoms in general, although this variable was strongly correlated with cynicism in particular, and both could eventually reduce satisfaction, interest and productivity in this subtype of workers^{36,61-63}.

Finally, neglect and lack of ambition were the dimensions that best explained the factor of lack of efficacy. These variables have also traditionally been associated with low performance levels in Bandura’s theory of perceived self-efficacy and lack of it may also cause difficulties when it comes to alleviating perceived stress^{43,64-66}. In general, it is understood that a progressive decrease in levels of engagement seems to be the kind of response adopted by burnout workers to cope with frustration, as described in the demand-resources model³¹, and could be an important factor in explaining the differences between the subtypes from a longitudinal perspective¹¹⁻²². These differences, explained by the BSCQ-36 and BCSQ-12 models by means of the degree of dedication to tasks as a criterion of typological classification, are not explained by previous models of burnout.

We have seen how that overload, lack of development and neglect variables of the BCSQ-12 contributed significantly to the explanation of exhaustion and cynicism; however, of these three variables in BCSQ-36, only overload contributed to that of exhaustion and only lack of development contributed to cynicism. This apparent inconsistency is the result of the control exerted by a number of variables over others when included together in the regression model. This effect can be understood if we observe that, while on a bivariate level significant correlations were obtained between the referred to independent and dependent variables (and generally between most of the variables under study), the lack of development and neglect variables in the BCSQ-36 regression model did not provide new information on exhaustion than that provided by the other variables. Likewise, no new information was provided by the overload and neglect variables on cynicism in the BCSQ-36 regression model. This effect is clear if we observe the values provided by the partial and semi-partial correlation coefficients ($R_{y3.12}$ and $R_{y(3.12)}$). As previously mentioned, this is due to the information that could have been added in both cases being contained in the

indifference, lack of acknowledgement and lack of control variables. We have already mentioned that indifference and lack of control could be dimensions with great explanatory power over all the classic symptoms, so they should perhaps be taken into account generally in the design of any intervention on the syndrome. However, lack of acknowledgement was more important for explaining exhaustion and cynicism and not so much for lack of efficacy. These apparent inconsistencies did not occur in the models in relation to the efficacy dimension, given that in both BCSQ-12 and BCSQ-36 the overload and lack of development variables did not contribute significantly to explaining it. In this case, neglect was seen to be the dimension with the greatest explanatory power over lack of efficacy.

As we have seen, the explanatory power of BCSQ-36 was high and significantly greater than that of BCSQ-12. Given its length, complexity and the information it contributes, this questionnaire could be a very suitable instrument for use in mental health services, facilitating the design of interventions adapted to the characteristics of each particular case. For example, the frenetic subtype may benefit more from an intervention focusing on decreasing levels of activation, distress and fatigue. On the other hand, the underchallenged subtype may need to recover interest and enthusiasm to regain satisfaction and meaning with regard to the tasks assigned. Finally, the worn-out subtype needs to address feelings of hopelessness, lack of perceived efficacy and sense of abandonment at work. The source of the discomfort experienced in each subtype of burnout seems to come from very different coping strategies and dysfunctional attitudes based on the level of dedication at work²⁴. In general, this approach is more in tune with how clinicians group symptoms and define disorders, something which may facilitate the use of specific forms of therapy. As Kokkinos¹¹ points out, the fact that each dimension of the syndrome is predicted by different variables should not remain unnoticed especially when designing and implementing intervention programmes to reduce burnout.

BCSQ-12 was also seen to have high explanatory power, very close to that of the long version. Given its brief and functional nature, and by making use of the already proposed cut-off points²⁸, it could be a very useful screening instrument in primary care consultations. In other words, this questionnaire could provide detection and recognition of burnout syndrome in cases where a comorbid association with anxiety, depressive or psychosomatic symptoms could lead to latent work-related psychosocial problems being overlooked⁴. We have seen that the subscales of overload, lack of development, and neglect that comprise the BCSQ-12 were highly associated in a bivariate way with the criterion dimensions of exhaustion, cynicism, and efficacy respectively, and contributed

significantly to its explanation in multivariate models, while being relatively unrelated with each other²⁵, meaning that besides significant convergence, they present great discriminative power for differentiating the clinical subtypes. So, these subscales approach both burnout perspectives, that of typology and the traditional perspective. Taken separately, as they are presented in BCSQ-12, they could provide a brief description of the history of syndrome development in an operative way and with high convergent validity.

When these findings are seen within the context of accumulated clinical experience on burnout syndrome, it can be observed that as with other disorders (such as anxiety and depression), burnout appears to show itself in different ways, which require specific evaluation and possibly different intervention approaches¹⁷⁻²³. Vercambre, Brosselin, Gilbert, Nerrière and Kovess-Masféty⁶⁷ take this perspective when they propose the use of different interventions depending on the characteristics presented by affected individuals. These authors recognize the multi-dimensional nature of burnout, but they set out their differential proposal over the classic dimensions of the MBI. These dimensions could include the core definition of burnout, but they do not facilitate a differentiation of the syndrome that would allow the history of the development of the disorder to be understood as is manifested in each particular case, something that can be done by means of the identification of the frenetic, underchallenged and worn-out subtypes of burnout. The properties making up the identified burnout subtypes may have different types of associations with the mediator variable of guilt, as suggested in other studies^{27,68}, thus contributing to explain the evolution of the different forms in which burnout is manifested¹⁰, and perhaps enabling their influence on health to be differentiated⁶⁹. Another interesting line of research that could lead to the establishment of specific biological markers for the syndrome may arise from the study of possible associations between the burnout subtypes, defined by the BCSQ-12 or BCSQ-36 models, and physiological correlates for the syndrome in current use, such as prolactin, cortisol, Immunoglobulin A, natural killer cell activity (NKCA) or mononuclear antibodies CD₁₆ and CD₅₇, which are associated with the functioning of the hypothalamo-pituitary-adrenal axis and the immune system⁷⁰⁻⁷³.

Conclusions

Both BCSQ-36 and BCSQ-12 present great explanatory power over the standard MBI-GS, with that of the former being significantly greater, which is understandable when taking into account the fact that it incorporates more information related to the antecedents of the classic or standard symptoms of

burnout. In general, the BCSQ-36 may be very useful in mental health services, given that it provides a good deal of information, while the BCSQ-12 could be used as a screening measure in primary care consultations owing to its simplicity and functional nature. A definition of the development of burnout like that established using the BCSQ-36 and BCSQ-12 is a valid and useful tool for organizational evaluation and to identify work conditions to prevent the development of burnout and may provide a better understanding of the disorder as it is presented in each case, enabling the design of more specific treatment approaches. This perspective is more comprehensive than that provided by the classic MBI-GS, given that it assesses the individual's perception of work conditions and enables a description to be made of the medical history of the development of the syndrome based on its particular idiosyncrasy, providing a more complete characterization of burnout by means of clinical subtypes. The differences observed in the relative weighting of the properties of each of the burnout subtypes when it comes to explaining the standard dimensions suggest a pattern of contributions that may be of use for the development of new treatments when faced with the need for specific interventions. Results from interventions to deal with burnout have not been promising until now, although more research is required into the effectiveness of the programmes in use. More specific treatments based on a definition of the syndrome using clinical subtypes, based on the level of dedication to work-related tasks, could perhaps increase the efficacy of our interventions.

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Chapter 7

A short definition of burnout types for students*

“His health condition had deteriorated. The lack of appetite and the insomnia, the dizziness and those shivering attacks he used to have since he was a child forced him to see the doctor on many occasions. Moreover, he wasn't able to follow his doctor's advice. His willpower weakened after so many years of forced and agonizing inertia and it wasn't strong enough to change. The constant pressure to which he subjugated his will, without getting any success or satisfaction, undermined his self-esteem and drove him to despair”.

(Thomas Mann, *Los Buddenbrook*, 1901)

* Montero-Marin J, et al.: Burnout syndrome among dental students: A short version of the 'Burnout Clinical Subtype Questionnaire' adapted for students (BCSQ-12-SS). *BMC Med Educ* 2011, 11:103

Abstract

Background

Burnout has been traditionally defined in relation to the dimensions of 'exhaustion', 'cynicism', and 'inefficacy'. More recently, the Burnout Clinical Subtype Questionnaire (BCSQ-12) further established three different subtypes of burnout: the 'frenetic' subtype (related to 'overload'), the 'under-challenged' subtype (related to 'lack of development'), and the 'worn-out' subtype (related to 'neglect'). However, to date, these definitions have not been applied to students. The aims of this research were to adapt a Spanish version of the BCSQ-12 for use with students, to test its factorial validity, internal consistency, convergent and discriminant validity, and to assess potential socio-demographic and occupational risk factors associated with the development of the subtypes.

Method

We used a cross-sectional design on a sample of dental students ($n = 314$) from Santiago and Huesca universities (Spain). Participants completed the 'Burnout Clinical Subtype Questionnaire' Student Survey (BCSQ-12-SS), the 'Maslach Burnout Inventory Student Survey' (MBI-SS), and a series of socio-demographic and occupational questions formulated for the specific purpose of this study. Data were subjected to exploratory factor analysis (EFA) using the principal component method with varimax orthogonal rotation. To assess the relations with the criterion, we calculated the Pearson correlation coefficient (r), multiple correlation coefficient ($R_{y.123}$), and the coefficient of determination ($R^2_{y.123}$). To assess the association between the subtypes and the socio-demographic variables, we examined the adjusted odds ratio (OR) obtained from multivariate logistic regression models.

Results

Factorial analyses supported the theoretical proposition of the BCSQ-12-SS, with α values exceeding 0.80 for all dimensions. The overload-exhaustion relation was $r = 0.59$ ($p < 0.001$), lack of development-cynicism, $r = 0.49$ ($p < 0.001$), neglect-inefficacy, $r = 0.47$ ($p < 0.001$). The overload-lack of development relation was $r = 0.21$ ($p < 0.001$), overload-neglect, $r = 0.20$ ($p < 0.001$), and lack of development-neglect, $r = 0.38$ ($p < 0.001$). The BCSQ-12-SS explained 38.44% of the variability in exhaustion, ($R_{y.123} = 0.62$), 30.25% in cynicism ($R_{y.123} = 0.55$), and 26.01% in inefficacy ($R_{y.123} = 0.51$). 'Hours spent on

studying' was found to be associated with overload ($p = 0.001$), 'campus' with lack of development ($p = 0.013$), and 'failed subjects' with neglect ($p = 0.011$).

Conclusions

The results support the definition of burnout as established by the BCSQ-12-SS. As such, the BCSQ-12-SS can be used for the recognition of clinical profiles and for the suggestion of potential intervention strategies specific to the characteristics of each particular case.

Background

Chronic stress in the work environment is a fundamental risk factor for developing burnout syndrome¹. Burnout is a physical response that an individual might experience when he or she fails to regulate stress effectively, and could have serious consequences on one's health².

Traditionally, burnout syndrome has been defined as a situation in which the affected person experiences feelings of emotional fatigue, depersonalization, and lack of personal achievement. 'Emotional fatigue' prevents workers from engaging in their work at an emotional level due to their perceived lack of energy. 'Depersonalization' refers to the development of negative feelings and behaviour towards other people, and often involves blaming others for one's own problems. 'Lack of achievement' refers to the tendency to assess one's own ability negatively and involves feelings of unhappiness and dissatisfaction³. However, to be able to apply the definition of burnout across all kinds of occupations, this syndrome has been redefined and standardized on three dimensions: exhaustion, cynicism, and inefficacy. 'Exhaustion', operating at the emotional level, refers to the feeling of not being able to give any more of oneself to work. 'Cynicism' is shown in distancing behaviours towards work, customers, and co-workers. Finally, 'inefficacy' refers to one's feelings of inadequacy and incompetence when performing tasks at work⁴.

Although burnout syndrome tends to be more prevalent in assistance or service professions, it has been observed in all types of occupations⁵. Among university students⁶, burnout syndrome has been found to be especially prevalent in those training for health careers, such as medicine⁷ and nursing⁸. In particular, past studies have found dentists to be highly likely to develop burnout due to the nature of their clinical work⁹⁻¹¹. In addition, both the education and practice of dentists have been well-documented as sources of stress. For example, in the course of their education, 10% of dental students suffered from serious levels of emotional fatigue, 28% showed symptoms of depersonalization, and 17% felt a lack of personal achievement¹². Burnout syndrome has been found to be most severe when dentists make their first step into the professional world. Therefore, dental universities have been advised to incorporate the instruction of stress management skills into their programmes¹³.

Recently, a newer and broader definition of burnout has been developed by our group based on research using the 'Burnout Clinical Subtype Questionnaire' (BCSQ-36). This new definition, only validated among samples of workers, differentiates between three clinical subtypes of burnout that vary on the level of

dedication at work. The 'frenetic' subtype, characterised by investing a large amount of time in working, is typical of people who are very involved, ambitious, and overloaded. The 'under-challenged' subtype, characterised by feelings of indifference, boredom, and lack of personal development, is typical of people who perform mechanical tasks. The 'worn-out' subtype is characterised by the feeling of losing control over outcomes, the perceived lack of recognition of one's own efforts, and the giving up of responsibilities. The worn-out subtype is influenced by the rigidity of the organisational structure at work¹⁴⁻¹⁷.

The dimensions overload, lack of development and neglect, belonging to the frenetic, underchallenged and worn-out subtypes, respectively, comprise a definition of burnout that comes close to the standard and typological approaches¹⁸. This brief definition, also developed by our research group, is operationalized by means of the short version of the Burnout Clinical Subtype Questionnaire or BCSQ-12. 'Overload' refers to individuals' feeling of risking health and personal life in the pursuit of good results, and is significantly associated with exhaustion; 'lack of development' refers to the absence of personal growth experiences for individuals together with their desire take on other jobs where they can better develop their skills, and is significantly associated with cynicism; 'neglect' refers to individuals' disregard as a response to any difficulty, and is strongly associated with inefficacy.

The dimensions established in the BCSQ-12 have proven useful for the quick recognition of burnout subtypes with criterion validity¹⁸. However, these dimensions have not been tested among students. It is worth investigating whether the model based on BCSQ-12 is valid among dental students, given the characteristics of this population as well as the possibility of enabling more specific assessments and interventions among a population highly affected by burnout. Therefore, the aims of the present study included adapting the BCSQ-12 for use with students, evaluating its factorial structure, internal consistency, convergent and discriminant validity, and contrast the socio-demographic and occupational risk factors associated with the development of each subtype.

Method

Design and study population

A cross-sectional design was used, with analyses based on self-reported data collected from two different sites. The pool of potential participants consisted of dental students ($N = 378$) attending the Spanish universities of Huesca ($N_H = 136$) and Santiago de Compostela ($N_S = 242$) in the 2010-11 academic year. Of

all the potential participants, 314 students completed and returned the surveys, achieving a response rate (RR) of 83.07%. The sample size exceeded the evaluation criterion of construction and composition validity that was necessary given the number of covariates^{20,21}, which lent psychometric adequacy to the analysis. We did not find significant differences in the response rate between students from the two universities ($p = 0.092$). Neither did we find differences between the participants and non-participants in terms of age ($p = 0.493$), gender ($p = 0.322$) or year of study ($p = 0.102$).

Procedure

A clinical psychologist provided instructions to the lecturers at both universities on how to administer the questionnaires. Prior to beginning the study, participants provided their informed consent by reading and approving the objectives of the study, the participants at whom it was targeted, the voluntary nature of study participation, the potential benefits/risks of the study, and the total confidentiality of the data, as described on the first page of the protocol. The survey was administered by lecturers using time between classes during the last week of May 2011, two weeks before the exam period began. Completed questionnaires were gathered in sealed envelopes to ensure anonymity. The project was approved by the Aragón Regional Ethical Committee.

Measurements

Socio-demographic and occupational factors

First, we collected data on the following socio-demographic characteristics of the participants: age, gender, whether one was in a stable relationship ('yes' vs. 'no'), children ('yes' vs. 'no'), campus ('Huesca' vs. 'Santiago'), distance from family home in kilometres, place of residence during the year ('with parents', 'dormitory', 'shared flat', 'private flat'), scholarship ('yes' vs. 'no'), perceived parental support for one's studies ('insufficient', 'good', 'very good'), weekly time spent on studying, failed subjects over the previous exam period ('none', 'one', 'two or more'), job ('yes' vs. 'no'), and year of study ('first', 'second', 'third', 'fourth', 'fifth').

Burnout Clinical Subtype Questionnaire Students Survey

Then participants responded to a short version of the 'Burnout Clinical Subtype Questionnaire', or BCSQ-12¹⁸, adapted for use with students ('Burnout Clinical Subtype Questionnaire Students Survey', or BCSQ-12-SS). The adaptation

procedure consisted of changing all references to work into references to student activity (Annex 6 shows the Spanish version of the questionnaire and Annex 5 shows the English version, although only the Spanish version was used in this study). The BCSQ-12-SS consists of 12 items that were evenly distributed among the dimensions: overload (e.g., "I think I invest more than is healthy in my commitment to my studies"), lack of development (e.g., "I would like to study something else that would be more challenging to my abilities"), and neglect (e.g., "When the results of my studies are not good at all, I stop making an effort"). The subjects had to indicate the point to which they agreed with each item using a Likert-type scale with 7 response options ranging from 1 ('completely disagree') to 7 ('completely agree'). Results are presented in scalar scores. High internal consistency was achieved for each dimension of the original BCSQ-12, with adequate criterion validity^{16,18}.

Maslach Burnout Inventory Student Survey

Finally, an adaptation in Spanish of the 'Maslach Burnout Inventory General Survey' or MBI-GS⁴, version for students, the 'Maslach Burnout Inventory Student Survey' or MBI-SS⁶, was administered (Annexes 9 and 10). This adaptation consists of 15 items where the references to work are changed for references to study. Five items corresponded to the exhaustion dimension (e.g.: "I am emotionally exhausted by this career"), 4 items corresponded to the cynicism dimension (e.g.: "I lost enthusiasm for my career"), and 6 items corresponded to the efficacy dimension (e.g.: "In my opinion, I am a good student"). Participants responded on a Likert-type scale with 7 response options that ranged from 0 ('never') to 6 ('always'). Results are presented in scalar scores. Both the factorial solution of the scale, and the reliability of the dimensional components, have proven to be consistent⁶, with α values ≥ 0.74 .

Data analysis

The continuous socio-demographic and occupational variables were recoded into 3 levels, which were introduced in the analysis as dummy variables as follows: age ('< 20 years old', '20 to 22 years old', '> 22 years old'), distance from family home ('< 75 Km', '75-150 Km', '> 150 Km') and weekly time studying ('< 30 hours', '30-40 hours', '> 40 hours'). We conducted a descriptive analysis of participant characteristics in the entire sample and separately for each campus ('Huesca' vs. 'Santiago') using frequencies, percentages and χ^2 statistics to assess potential differences¹⁹. Means, standard deviation, minimum and maximum statistics were calculated for each item in the BCSQ-12-SS.

We tested the factor structure of the BCSQ-12-SS using an exploratory factorial analysis (EFA), through principal component method with varimax orthogonal rotation²⁰. We performed a series of preliminary analyses to confirm the legitimacy of the analysis. Specifically, analyses revealed that all variables in the matrix were significantly correlated, yielding high percentage values ≥ 0.30 . Additionally, most sampling adequacy coefficients exceeded 0.80, the determinant of the matrix was very low but not null, the anti-image coefficients were low in absolute values, the Kaiser-Meyer-Olkin (KMO) measurement was > 0.70 , and the Bartlett's test of sphericity produced a significant result²¹. The number of components was determined using the Kaiser's criterion²², which requires eigenvalues > 1 , and the Cattell scree-test on the sedimentation graph²³. The percentage of variance explained for each item was calculated using h^2 values of communality. The items were distributed among the factors to which they connected most strongly²⁴, always with values $w > 0.5$.

The internal consistency of each factor was calculated using the Cronbach's α , the item-rest discrimination coefficients and taking into account changes in α after eliminating each item. The Pearson correlation coefficient (r) was used to evaluate the discriminating power of dimensions in the BCSQ-12-SS and to examine the convergence between them and the MBI-SS dimension criterion. To further estimate the explanatory ability of the BCSQ-12-SS over the criterion, we calculated multiple correlation coefficients ($R_{y.123}$) and multiple coefficients of determination ($R^2_{y.123}$).

Participants situated above the 75th percentile (P_{75}) for each dimension of the BCSQ-12-SS were considered to have 'high scores', whereas those situated below the 75th percentile were considered to have 'low scores'^{17,25,26}. Using simple binary logistic regression (LR) models to yield odds ratio (ORs) with a 95% confidence interval (CI), we conducted a bivariate analysis to assess the potential association between the burnout subtypes and socio-demographic and occupational variables of interest. The statistical significance of the association was assessed using the Wald test. The factors that showed significant values as a result of the bivariate analysis ($p < 0.05$) were included in a multivariate LR model to estimate the corresponding adjusted ORs and 95% CIs. The statistical significance of the adjusted ORs was assessed using the Wald test. The adjustment of each multivariate model was assessed using the Hosmer-Lemeshow χ^2 test, and according to the percentage of correctly classified cases, with a reference value of 0.5.

All contrasts were bilateral, with a significance level of $\alpha < 0.05$. Data analysis was conducted using SPSS-15 and Epidat 3.1.

Results

Characteristics of the study participants

The sample of participants consisted of 314 students, who represented a RR of 83.07%. The participants were between 18 to 41 years of age (average = 22.05; SD = 3.57), with 70.70% of them being women. All participants described themselves as being white Europeans. Table 25 shows the socio-demographic and occupational characteristics for the entire sample and for each campus. Compared to students at Santiago, students at Huesca lived further away from the family home ($p < 0.001$), were more likely to live in shared flats ($p = 0.002$), were less likely to have received a scholarship ($p = 0.011$), and failed a higher percentage of subjects over the previous exam period ($p = 0.040$). Santiago and Huesca students were similar with regard to the rest of the socio-demographic and occupational variables.

Descriptive statistics

Table 26 shows the descriptive statistics for the items on the BCSQ-12-SS. Item nº 1 ("I think I invest more than is healthy in my commitment to my studies") showed the highest values (average = 4.07), whereas nº 9 ("I give up when faced with any difficulty in my tasks as a student") showed the lowest values (average = 1.85). The variability of the items presented SD values that ranged between 1.06 (for item nº 9) and 1.84 (for item nº 7: "I am endangering my health in pursuing good results in my studies"). Individual answers covered the entire range (from 1.00 to 7.00) of the scale, with the exception of item nº 9 (maximum value = 5.00).

Factorial validity

All of the items on the BCSQ-12-SS showed significant correlations among themselves (75.76% of the total of these correlations). Among the correlations, 42.42% were > 0.30 . All sampling adequacy coefficients exceeded 0.75, with 66.67% being > 0.80 . The determinant factor of the matrix showed a value of 0.004, and all anti-image coefficients showed absolute values close to 0. The Kaiser-Meyer-Olkin measurement was very good ($KMO = 0.82$) and Bartlett's test of sphericity produced a significant result ($\chi^2 = 1,695.11$; $gl. = 66$; $p < 0.001$). Together, these considerations allowed us to legitimately conduct the EFA.

Table 25: Socio-Demographic and Occupational Characteristics of Participants

	TOTAL (n=314)	Huesca (n=119)	Santiago (n=195)	p
Age (years)				0.989
<20	109 (34.72)	42 (35.29)	67 (34.36)	
20-22	116 (36.94)	44 (36.97)	72 (36.92)	
>22	89 (28.34)	33 (27.74)	56 (28.72)	
Gender				0.118
female	222 (70.70)	78 (65.55)	144 (73.85)	
Stable Relationship				0.952
no	158 (50.48)	59 (49.58)	99 (50.77)	
Children				0.340
without Children	300 (95.54)	112 (94.12)	188 (96.41)	
Distance from family home (Km)				<0.001
<75	110 (35.03)	24 (20.17)	86 (44.10)	
75-150	103 (32.80)	23 (19.33)	80 (41.03)	
>150	101 (32.17)	72 (60.50)	29 (14.87)	
Place of Residence				0.002
with parents	38 (12.10)	7 (5.88)	31 (15.90)	
dormitory	51 (16.24)	18 (15.13)	33 (16.92)	
shared flat	183 (58.28)	84 (70.59)	99 (50.77)	
private flat	42 (13.38)	10 (8.40)	32 (16.41)	
Receives a scholarship				0.011
no	199 (63.38)	86 (72.27)	113 (57.95)	
Family Support				0.202
insufficient	20 (6.37)	5 (4.20)	15 (7.69)	
good	74 (23.57)	24 (20.17)	50 (25.64)	
very good	220 (70.06)	90 (75.63)	130 (66.67)	
Weekly studying (hours)				0.968
<30	132 (42.04)	51 (42.86)	81 (41.54)	
30-40	79 (25.16)	30 (25.21)	49 (25.13)	
>40	103 (32.80)	38 (31.93)	65 (33.33)	
Failed subjects				0.040
none	212 (67.92)	74 (62.18)	138 (70.77)	
one	78 (24.57)	39 (32.77)	39 (20.00)	
two or more	24 (7.51)	6 (5.05)	18 (9.23)	
Job				0.347
no	266 (84.71)	98 (82.35)	168 (86.15)	
Year of study				0.262
first	62 (19.75)	29 (24.36)	33 (16.92)	
second	63 (20.06)	26 (21.85)	37 (18.97)	
third	60 (19.11)	21 (17.65)	39 (20.01)	
fourth	69 (21.97)	26 (21.85)	43 (22.05)	
fifth	60 (19.11)	17 (14.29)	43 (22.05)	

Frequencies, percentages (in parentheses) and p-values (χ^2 analysis) for the entire sample and grouped by campus.

Table 26: Factorial Weights, descriptive statistics, communalities, and coefficients of discrimination

	Factor weighting			Mn	SD	h ²	Ítem rest
	1	2	3				
1. I think I invest more than is healthy in my commitment to my studies	0.76	-0.04	-0.11	4.07	1.59	0.59	0.58
4. I neglect my personal life to pursue great accomplishments in studying	0.81	0.13	0.16	3.26	1.77	0.70	0.68
7. I am endangering my health in pursuing good results in my studies	0.88	0.12	0.07	2.98	1.84	0.79	0.78
10. I ignore my own needs to satisfy the requirements of my studies	0.84	0.09	0.16	2.98	1.75	0.73	0.73
3. When the results of my studies are not good at all, I stop making an effort	0.01	0.77	0.04	2.25	1.41	0.59	0.59
6. I give up in response to an obstacle in my studies	0.17	0.78	0.08	2.14	1.35	0.63	0.63
9. I give up when faced with any difficulty in my tasks as a student	-0.03	0.81	0.26	1.85	1.06	0.73	0.70
12. When the effort invested in studying is not enough, I give up	0.13	0.80	0.15	2.03	1.22	0.69	0.66
2. I would like to study something else that would be more challenging to my abilities	-0.06	-0.07	0.80	2.73	1.65	0.65	0.53
5. I feel that my current studies are hampering the development of my abilities	0.21	0.39	0.71	2.32	1.35	0.70	0.66
8. I would like to study something else in which I could better develop my talent	0.02	0.13	0.86	2.41	1.61	0.76	0.72
11. My studies do not provide me with opportunities to develop my abilities	0.22	0.32	0.72	2.37	1.45	0.68	0.64

Extraction Method: Principal Component Analysis with Varimax rotation. Mn = mean. SD = standard deviation. Item-rest = coefficient of item-rest discrimination according to factorial solution. h² = communalities.

The EFA yielded a three-factor solution with no forcing necessary. The first component showed an eigenvalue of $\lambda_1 = 4.25$ (explaining 35.43% of the variance), the second component showed an eigenvalue of $\lambda_2 = 2.34$ (19.49%), and the third component showed an eigenvalue of $\lambda_3 = 1.64$ (13.66%). The three components satisfied Kaiser criterion and the Cattell's scree-plot test, and explained 68.58% of the total variance. Table 26 shows the factorial weights and h² values. Items nº 1, 4, 7 and 10 loaded on the first component (overload) with values ranging from 0.76 (item 1) to 0.88 (item 7). Items nº 3, 6, 9, and 12 loaded on the second component (neglect), with values ranging from 0.77 (item 3: "When the results of my studies are not good at all, I stop making an effort") to 0.81 (item 9). Items nº 2, 5, 8, and 11 loaded on the third component (lack of development), with values ranging from 0.71 (item 5: "I feel that my present

studies are hampering the development of my abilities”) to 0.86 (item 8: “I would like to study something else in which I could better develop my talent”). The h^2 values were high in all cases, with values ≥ 0.59 .

Reliability

Table 26 shows the item-rest coefficients that revealed the association between the items on the BCSQ-12-SS and their respective factor components. Values ranged from 0.53 (item 2: “I would like to study something else that would be more challenging to my abilities”) to 0.78 (item 7: “I am endangering my health in pursuing good results in my studies”). Analysis of the internal consistency of the BCSQ-12-SS resulted in α values that exceeded 0.80 for all dimensions (Table 27). In all cases, the elimination of each item one at a time decreased the value of alpha coefficients.

Table 27: Descriptive statistics, internal consistency and correlations

	Mn	SD	1	2	3	4	5	6
BCSQ-12-SS								
1. Overload	3.32	1.45	(0.85)					
2. Lack of develop.	2.46	1.22	0.21*	(0.81)				
3. Neglect	2.07	1.01	0.20*	0.38*	(0.82)			
MBI-SS								
4. Exhaustion	2.70	1.50	0.59*	0.23*	0.25*	(0.90)		
5. Cynicism	1.39	1.18	0.27*	0.49*	0.36*	0.46*	(0.78)	
6. Efficiency	4.14	0.94	-0.02	-0.24*	-0.47*	-0.12*	-0.36*	(0.76)

* $p < 0.001$ (bilateral); Values α into brackets in the diagonal. Mn = mean; SD = standard deviation

Convergent-discriminant validity

Table 27 shows the results of the convergent-discriminant analysis of validity. The highest convergence values were found for the following pairs of dimensions: overload-exhaustion ($r = 0.58$; $p < 0.001$), lack of development-cynicism ($r = 0.48$; $p < 0.001$), and neglect-efficacy ($r = 0.49$; $p < 0.001$). Taken together, the BCSQ-12-SS dimensions explained 38.44% of the variation in exhaustion ($R_{y.123} = 0.62$; $p < 0.001$), 30.25% in cynicism ($R_{y.123} = 0.55$; $p < 0.001$), and 26.01% in efficacy ($R_{y.123} = 0.51$; $p < 0.001$). Discrimination was $r = 0.21$ ($p < 0.001$) for overload and lack of development, $r = 0.20$ ($p < 0.001$) for overload and neglect, and $r = 0.38$ ($p < 0.001$) for lack of development and neglect.

Table 28: Univariate analysis for overload (frenetic subtype)

Factor	Overload			
	high score (%)	low score (%)	raw OR (95% CI)	p
Age (years)				
<20	23 (21.11)	86 (78.90)	ref.	
20-22	28 (24.14)	88 (75.86)	1.19 (0.64-2.23)	0.587
>22	20 (22.73)	68 (77.27)	1.10 (0.56-2.17)	0.784
Gender				
male	17 (18.48)	75 (81.52)	ref.	
female	54 (24.32)	168 (75.68)	1.42 (0.77-2.61)	0.260
Stable relationship				
yes	42 (27.10)	113 (72.90)	ref.	
no	28 (17.72)	130 (82.28)	0.58 (0.34-0.99)	0.047
Children				
none	65 (21.67)	235 (78.33)	ref.	
1 or more	6 (42.86)	8 (57.14)	2.71 (0.91-8.09)	0.064
Campus				
Huesca	33 (27.73)	86 (72.27)	ref.	
Santiago	38 (19.49)	157 (80.51)	0.63 (0.37-1.08)	0.090
Dist. from family home (Km)				
<75	20 (18.18)	90 (81.82)	ref.	
75-150	29 (28.16)	74 (71.84)	1.76 (0.92-3.37)	0.086
>150	22 (22.22)	77 (77.78)	1.29 (0.65-2.53)	0.467
Dwelling				
with parents	5 (13.16)	33 (86.84)	ref.	
college	14 (28.00)	36 (72.00)	2.57 (0.83-7.91)	0.101
Shared flat	36 (19.67)	147 (80.33)	1.62 (0.59-4.43)	0.351
Flat without sharing	16 (38.10)	26 (61.91)	4.06 (1.32-12.55)	0.015
Scholarship				
yes	26 (22.61)	89 (77.39)	ref.	
no	45 (22.61)	154 (77.39)	1.00 (0.58-1.73)	0.999
Family support				
insufficient	3 (15.00)	17 (85.00)	ref.	
good	24 (32.43)	50 (67.57)	2.72 (0.73-10.19)	0.137
very good	44 (20.00)	176 (80.00)	1.42 (0.40-5.05)	0.591
Studying time (hours/week)				
<30	15 (11.54)	115 (88.46)	ref.	
30-40	21 (27.63)	55 (72.37)	2.93 (1.40-6.11)	0.004
>40	33 (32.67)	68 (67.33)	3.72 (1.86-7.34)	<0.001
Failed Subjects				
no	49 (24.62)	50 (75.38)	ref.	
one	17 (23.61)	55 (76.39)	0.95 (0.50-1.78)	0.864
two or more	3 (13.64)	19 (86.36)	0.48 (0.14-1.70)	0.258
Work (hours/week)				
yes	13 (27.08)	35 (72.92)	ref.	
no	58 (21.89)	207 (78.11)	0.75 (0.38-1.52)	0.430
School Year				
first	16 (26.23)	45 (73.78)	ref.	
second	14 (22.22)	49 (77.78)	0.80 (0.35-1.83)	0.603
third	21 (35.00)	39 (65.00)	1.51 (0.70-3.30)	0.296
fourth	12 (17.39)	57 (82.61)	0.59 (0.25-1.38)	0.224
fifth	7 (11.67)	53 (88.33)	0.37 (0.14-0.98)	0.046

% refers to the percentage in each step. Raw OR: Odds Ratio resulting from bivariate analysis. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile of the scores observed in the sample', 'low score' implies scores lower than or equal to the upper quartile.

Socio-demographic and occupational risk factors

In Tables 28, 29 and 30 we present the results of the univariate analysis on the potential socio-demographic and occupational risk factors. Only the university campus was found to be significantly related to the status variable lack of development. Specifically, Santiago's students, when compared with Huesca's students, showed an OR = 2.07 (95% CI = 1.16-3.70; $p = 0.013$). This variable managed to correctly predict 76.43% of cases. The variables 'year of study' and 'weekly hours spent on studying' produced significant results after the multivariate analysis on the status variable overload. Specifically, fifth-year students, when compared with first-year students, showed an OR = 0.32 (95% CI = 0.11-0.95; $p = 0.041$), students who dedicated > 40 hours to their studies every week, when compared with those dedicating < 30 hours, showed an OR = 3.41 (95% CI = 1.63-7.11; $p = 0.001$), and students who dedicated 30-40 hours an OR = 2.93 (95% CI = 1.34-6.43; $p = 0.007$). The adjustment of the model was acceptable ($\chi^2 = 7.05$; $gl = 8$; $p = 0.531$), with 78.29% correctly classified cases. Both 'received a scholarship' and 'failed subjects over the past four trimesters', presented significant results after the multivariate analysis on the status variable neglect. Specifically, students who did not receive a scholarship, compared to those who received one, yielded an OR = 0.56 (95% CI = 0.32-0.99; $p = 0.048$), students who failed two or more subjects, when compared with those who passed everything, yielded an OR = 3.36 (95% CI = 1.32-8.57; $p = 0.011$), and students who failed a subject an OR = 2.11 (95% CI = 1.12-3.98; $p = 0.021$). The adjustment of the model was acceptable ($\chi^2 = 0.09$; $gl = 2$; $p = 0.956$), with 78.01% correctly classified cases.

Discussion

This is the first study that proposes an adaptation of the short version of the 'Burnout Clinical Subtype Questionnaire' or BCSQ-12¹⁸ for possible application to students, by means of the 'Burnout Clinical Subtype Questionnaire Student Survey' or BCSQ-12-SS. This adaptation showed good psychometric properties, with a factorial structure that replicated the original design. This provides evidence that favours the use of the questionnaire and opens the possibility for fast differentiation between students by means of clinical subtypes of burnout.

The main strength of the present study was its high level of participation, reflected by a high RR, which made it appropriate to perform our selected analytical procedures. Moreover, because the study was conducted on samples of dental students (with similar RRs) coming from two different institutions and two

Table 29: Univariate analysis for lack of development (underchallenged subtype)

Factor	Lack of development			
	high score (%)	low score (%)	raw OR (95% CI)	p
Age (years)				
<20	27 (24.77)	82 (75.23)	ref.	
20-22	28 (24.14)	88 (75.86)	0.97 (0.53-1.78)	0.912
>22	18 (20.45)	70 (79.55)	0.78 (0.40-1.54)	0.474
Gender				
male	27 (29.35)	65 (70.65)	ref.	
female	47 (21.17)	175 (78.83)	0.65 (0.37-1.12)	0.122
Stable relationship				
yes	35 (22.58)	120 (77.42)	ref.	
no	38 (24.05)	120 (75.95)	1.09 (0.64-1.83)	0.759
Children				
none	72 (24.00)	228 (76.00)	ref.	
1 or more	2 (12.29)	12 (85.71)	0.53 (0.12-2.41)	0.410
Campus				
Huesca	19 (16.97)	100 (84.03)	ref.	
Santiago	55 (28.21)	140 (71.79)	2.07 (1.16-3.70)	0.013
Dist. from family home (Km)				
<75	30 (27.27)	80 (72.73)	ref.	
75-150	24 (23.30)	79 (76.70)	0.81 (0.44-1.51)	0.506
>150	20 (20.20)	79 (79.80)	0.66 (0.35-1.29)	0.233
Dwelling				
with parents	13 (34.21)	25 (65.79)	ref.	
college	8 (16.00)	42 (84.00)	0.37 (0.13-1.01)	0.051
Shared flat	41 (22.40)	142 (77.60)	0.56 (0.26-1.18)	0.127
Flat without sharing	11 (26.19)	31 (73.81)	0.68 (0.26-1.78)	0.435
Scholarship				
yes	34 (29.57)	81 (70.43)	ref.	
no	40 (20.10)	159 (79.90)	0.60 (0.35-1.02)	0.057
Family support				
insufficient	5 (25.00)	15 (75.00)	ref.	
good	21 (28.38)	53 (71.62)	1.19 (0.38-3.68)	0.765
very good	48 (21.82)	172 (78.18)	0.84 (0.29-2.42)	0.743
Studying time (hours/week)				
<30	29 (22.31)	101 (77.70)	ref.	
30-40	23 (30.26)	53 (69.74)	1.51 (0.80-2.87)	0.206
>40	20 (19.80)	81 (80.20)	0.86 (0.45-1.63)	0.644
Failed Subjects				
no	40 (20.10)	159 (79.90)	ref.	
one	22 (30.56)	50 (69.44)	1.75 (0.95-3.22)	0.072
two or more	7 (31.82)	15 (68.18)	1.86 (0.71-4.85)	0.208
Work (hours/week)				
yes	10 (20.83)	38 (79.17)	ref.	
no	64 (24.15)	201 (75.85)	1.21 (0.57-2.57)	0.619
School Year				
first	16 (26.23)	45 (73.77)	ref.	
second	11 (17.46)	52 (82.54)	0.60 (0.25-1.41)	0.239
third	15 (25.00)	45 (75.00)	0.94 (0.41-2.12)	0.877
fourth	15 (21.74)	54 (78.26)	0.78 (0.35-1.75)	0.549
fifth	16 (26.67)	44 (73.33)	1.02 (0.46-2.29)	0.957

% refers to the percentage in each step. Raw OR: Odds Ratio resulting from bivariate analysis. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile of the scores observed in the sample', 'low score' implies scores lower than or equal to the upper quartile.

distinct autonomous communities, it becomes easier to generalise the results. Generalisation was also supported by the fact that respondents behaved similarly to non-respondents in terms of age, gender, and year of study. Finally, mistakes in transcription were corrected using an external supervision process, that is, by an independent coder. At the same time, the fundamental shortcoming of the study had to do with its cross-sectional and correlational design. Such designs do not withstand the elaboration of contrasts that are etiological in nature, but only allow the identification of associated risk factors.

The participants were young, and the majority of them were female, did not have children, lived in shared flats, did not receive a scholarship, enjoyed good family support, and had not failed subjects over the previous exam period. The responses to the items on the BCSQ-12-SS covered a large range of the Likert scale and had good variability and a high correlation with one another; together, these characteristics allowed us to legitimately conduct an EFA^{21,27}. The EFA yielded three components structure (overload, neglect, and lack of development, in order of appearance) that explained a high percentage of the variance^{22,23}. The reliability analysis showed very good results in all dimensions and for all items, which evidenced the precision of the instrument²⁸. The convergence between the three components and the standard definitions of burnout was moderately high, especially for overload-exhaustion, lack of development-cynicism, and neglect-inefficacy. An adequate discriminating validity was found when differentiating between the subtypes, which allows us to keep using the term burnout when identifying its various manifestations²⁸. Thus, the BCSQ-12-SS represents an improvement on the standard definitions of the MBI for students by making a more specific characterisation of burnout possible. In addition to enabling the quick differentiation among clinical subtypes, the BCSQ-SS allows the evaluation and development of interventions tailored to the characteristics of each individual.

The variables 'weekly hours spent on studying' and 'year of study' were associated with overload. Overload is a central property of the frenetic subtype, which is characterised by a great commitment and high ambitions to the point of overloading oneself to fulfil work requirements, or in this case, study requirements¹⁴⁻¹⁶. We observed that the more hours that students spend studying, the more likely it is for them to score high on overload and, hence, experience more severe levels of exhaustion. This result is in line with the definition of the profile and with the findings of past work on samples of workers^{17,29-32}. Moreover, fifth-year students were less likely than first-year students to experience overload. This is reasonable given that the fifth year is the last one of the university career. In other words, fifth-year students are those

Table 30: Univariate analysis for neglect (worn-out subtype)

Factor	Neglect			
	high score (%)	low score (%)	raw OR (95% CI)	p
Age (years)				
<20	23 (21.10)	86 (78.90)	ref.	
20-22	17 (14.78)	98 (85.22)	0.65 (0.33-1.29)	0.219
>22	27 (31.03)	60 (68.97)	1.68 (0.88-3.21)	0.115
Gender				
male	16 (17.58)	75 (82.42)	ref.	
female	52 (23.53)	169 (76.47)	1.44 (0.77-2.69)	0.249
Stable relationship				
yes	34 (21.94)	121 (78.06)	ref.	
no	33 (21.15)	123 (78.85)	0.96 (0.56-1.64)	0.867
Children				
none	65 (21.81)	233 (78.19)	ref.	
1 or more	3 (41.43)	11 (78.57)	0.98 (0.27-3.61)	0.973
Campus				
Huesca	22 (18.80)	95 (81.20)	ref.	
Santiago	46 (23.59)	149 (76.41)	1.33 (0.75-2.36)	0.322
Dist. from family home (Km)				
<75	26 (23.64)	84 (76.36)	ref.	
75-150	22 (21.57)	80 (78.43)	0.89 (0.47-1.69)	0.719
>150	20 (20.41)	78 (79.59)	0.83 (0.43-1.60)	0.576
Dwelling				
with parents	11 (29.73)	26 (70.27)	ref.	
college	8 (16.00)	42 (84.00)	0.45 (0.16-1.27)	0.130
Shared flat	40 (22.98)	142 (78.02)	0.67 (0.30-1.46)	0.311
Flat without sharing	9 (21.43)	33 (78.57)	0.65 (0.23-1.79)	0.399
Scholarship				
yes	32 (28.07)	82 (71.93)	ref.	
no	36 (18.18)	162 (81.82)	0.57 (0.33-0.98)	0.043
Family support				
insufficient	5 (25.00)	15 (75.00)	ref.	
good	14 (18.92)	60 (81.08)	0.70 (0.22-2.25)	0.549
very good	59 (22.48)	169 (77.52)	0.87 (0.30-2.51)	0.797
Studying time (hours/week)				
<30	33 (25.78)	96 (74.22)	ref.	
30-40	16 (21.05)	60 (78.95)	0.77 (0.39-1.51)	0.445
>40	17 (16.83)	84 (83.17)	0.58 (0.30-1.12)	0.106
Failed Subjects				
no	34 (17.09)	165 (82.91)	ref.	
one	21 (30.00)	49 (70.00)	2.08 (1.11-3.91)	0.023
two or more	9 (40.91)	13 (59.09)	3.36 (1.33-8.49)	0.010
Work (hours/week)				
yes	14 (29.17)	34 (70.83)	ref.	
no	54 (20.53)	209 (79.47)	0.63 (0.32-1.25)	0.186
School Year				
first	17 (28.33)	43 (71.67)	ref.	
second	12 (19.05)	51 (81.95)	0.60 (0.26-1.38)	0.228
third	14 (23.33)	46 (76.67)	0.77 (0.34-1.75)	0.532
fourth	11 (16.18)	57 (83.82)	0.49 (0.21-1.15)	0.100
fifth	13 (21.67)	47 (78.33)	0.70 (0.30-1.61)	0.400

% refers to the percentage in each step. Raw OR: Odds Ratio resulting from bivariate analysis. CI: confidence interval. Ref. = reference category. 'High score' implies scores higher than the upper quartile of the scores observed in the sample', 'low score' implies scores lower than or equal to the upper quartile.

who are about to graduate, who would soon finish their studies, and who have had time to learn to manage the sources of stress affecting them.

The variable 'campus' was associated with lack of development. Lack of development is a central property of the under-challenged subtype, which is characterised by feelings of indifference, boredom, and the perceived lack of personal development to the point that one is considering other occupations that might better express one's talent¹⁴⁻¹⁶. In comparison to students at Huesca, students at Santiago were more likely to score high on lack of development, and hence, on cynicism. It has been proposed that certain characteristics of the task and types of occupation (and in particular, mechanical tasks¹⁷) could make it more likely for a person to develop burnout, specifically with regard to the under-challenged profile³³⁻³⁵. The differences found between groups could be due to the fact that the University of Santiago enrolls many more students and has to give more importance to the most formal aspects of teaching.

The variables 'failed subjects over the previous four trimesters' and 'received a scholarship' were found to be associated with neglect. Neglect is the central property of the worn-out subtype¹⁴⁻¹⁶, which is characterised by feelings of losing control of study outcomes, a perceived lack of recognition of one's efforts and the tendency to give up responsibilities. In particular, neglect results when one adopts passive, inefficient strategies to cope with obstacles; doing so leads to a reduced perceived level of efficacy and the tendency for a person to 'throw in the towel' when encountering difficulties³⁶⁻⁴⁰. It has also been proposed that organisational rigidity of institutions, including universities, could influence the process by taking away a person's commitment to tasks¹⁷. In this context, it is easy to understand that low return on investment in the first part of the course year could result in subsequent neglect. Finally, students who had received a scholarship, compared to those who had not received one, were more likely to score high in neglect. This result may seem contradictory; however this is not the case if we consider that in Spain academic performance (together with family income) determines the qualification of scholarships for the following academic year, not the present one. In other words, students on scholarships receive a grant without having to justify it in the same year. From the exchange perspective, students on scholarships appreciated that there would be more gain in choosing a passive coping strategy in the face of difficulties in their studies. The way in which having received the scholarship is associated with more neglectful behaviour is complex, and it may be affected by both socio-cultural and educational factors owing to families' economic differences and education owing to the conditions under which the scholarship awarding system operates.

Conclusions

The findings of this study are interesting because they reinforce and compliment the results obtained in previous studies that had studied burnout from a different occupational perspective. The BCSQ-12-SS represents an improvement on our understanding of burnout by enabling us to classify students affected by burnout into clinical subtypes, and by making it easier to understand the particular idiosyncrasies of individuals suffering from burnout. The associations observed between socio-demographic variables and the different subtypes enable quicker identification. Such associations can also be used to establish hypotheses that are etiological in nature, because they abide by the premise of temporal precedence in the action sequence⁴¹. Taken together, the findings of this study pave the way to the development of interventions that are tailored to the specific characteristics of each case of burnout according to the type of malaise experienced. Specific interventions are in particular demand for populations that are highly affected by burnout syndrome, such as dentists. Moreover, specific interventions will improve the efficacy of the few treatments that are currently available^{42,43}. In fact, considering the economic and health implications that can be derived from this new understanding⁴⁴, the findings of this study could even be applied at the prevention level, in the education of students itself.

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Capítulo 8

Discusión [Discussion]

“Los ojos que vuelan de cumbre en cumbre son ojos seguros, rebeldes, felices, llenos de ganas de vivir, de firmeza y valor para enfrentarse a lo que se ponga por delante; en cambio, ante la inmensidad del mar que mece sus olas con ese fatalismo místico e hipnótico, hay una mirada nublada, consciente y sin esperanza, que alguna vez vislumbró las profundidades del triste caos de la existencia ... Salud o enfermedad: ahí está la diferencia importante. Uno escala con arrojo la maravillosa diversidad de aquellos parajes llenos de aristas, cumbres y precipicios para poner a prueba su fuerza vital cuando todavía no se ha consumido nada de ella. Pero prefiere descansar en la infinita uniformidad del mundo exterior, cuando está cansado de la absurda maraña tejida en el interior”.

(Thomas Mann, *Los Buddenbrook*, 1901)

Contexto general [General context]

Las características del paradigma económico dominante en las sociedades occidentales, fuertemente orientado hacia la maximización de los beneficios y el crecimiento sostenido, como valores subsecuentes a los procesos de acumulación de capital, ha hecho que los lugares de trabajo se conviertan en un auténtico desafío, para el bienestar de los empleados. La actual aceleración de los procesos de producción, junto con el descuido del valor añadido que proporciona el cuidado de los recursos humanos, ha generado entornos laborales con unas condiciones propicias para la aparición de estrés, y para el desarrollo del síndrome de burnout, un estado de agotamiento a largo plazo, que lleva consigo una acusada disminución del interés por las tareas del trabajo¹. Tanto el estrés, como el burnout, son considerados ya epidemias en las sociedades modernas, y sus efectos negativos sobre la salud y la capacidad de trabajo, son reconocidos en todo el mundo.

Con el presente trabajo de investigación, hemos propuesto diferentes formas de manifestación del burnout, gracias a una definición del síndrome mediante subtipos clínicos, que permite identificar las características de cada caso en función de su desarrollo específico. Dicha definición, abre las puertas a un entendimiento más completo de la etiología del trastorno, facilitando así un reconocimiento temprano^{2,3}, y fomentando intervenciones más ajustadas a las características del trabajador y a las de la propia organización^{4,5}. La complejidad del burnout⁶ exige un abordaje más amplio, que el proporcionado clásicamente mediante la mera identificación de los síntomas individuales: agotamiento, cinismo e ineficacia^{1,7}. Para mejorar los resultados obtenidos por las intervenciones al uso, no del todo satisfactorios⁸⁻¹⁰, es necesario un tipo de aproximación que atienda los niveles individual y organizativo simultáneamente. Es por ello que, un marco teórico que posibilite la suma de esfuerzos integrando ambos niveles¹¹, facilitará el desarrollo de intervenciones que ofrezcan una relación costo-efectividad más favorable^{12,13}.

Una nueva definición [A new definition]

Nuestra idea del síndrome de burnout, no es totalmente nueva. La primera propuesta de una caracterización tipológica del burnout, como la utilizada en este trabajo, surgió hace ya un par de décadas, de la mano de Farber (Universidad de Columbia). Como resultado de varios años de observación clínica, Farber, reunió las experiencias de numerosos pacientes afectados de burnout¹⁴⁻¹⁹. A partir de ello, consiguió esbozar y etiquetar diferentes formas de presentar el síndrome: los subtipos 'frenético', 'sin-desafíos' y 'desgastado', respondiendo así críticamente a la idea generalmente extendida del burnout, como un trastorno de carácter unitario. Según

este autor, el subtipo de burnout frenético, estaría formado por sujetos que trabajan cada vez más duro hasta el agotamiento, buscando éxitos a la altura de la tensión ocasionada por todos sus esfuerzos. El subtipo de burnout sin-desafíos, estaría constituido por aquellos empleados insuficientemente retados, que han de afrontar condiciones laborales poco estimulantes, y que no proporcionan la satisfacción necesaria. Por último, el subtipo de burnout desgastado, estaría representado por aquellas personas trabajadoras que se rinden enseguida frente al estrés o la ausencia de gratificaciones^{14,18}.

Ahora bien, hasta el momento, esta propuesta no había pasado de ser una descripción preliminar, más o menos aislada, de casos clínicos, por lo que no constituía una verdadera definición tipológica. Mucho menos formaba un cuerpo teórico sistemático, en el sentido de un conjunto abstracto de elementos integrados en un modelo conceptual, mediante la intensificación de algún aspecto de la experiencia²⁰. Por medio del estudio: 'Caracterización de una nueva definición del burnout'²¹, presentado en el capítulo tercero, hemos tratado de identificar las propiedades fundamentales de cada uno de los perfiles de burnout. También hemos pretendido alcanzar el ordenamiento teórico necesario, para presentar una propuesta tipológica sistematizada, mediante un criterio de clasificación.

Según nuestros resultados, el subtipo de burnout frenético, estaría formado por trabajadores con una gran implicación, ambición y sobrecarga. La implicación, sería la inversión de todo el esfuerzo necesario hasta superar las dificultades del trabajo; la ambición, una gran necesidad de obtener grandes triunfos y logros; y la sobrecarga, el hecho de arriesgar la salud y descuidar la vida personal en la persecución de buenos resultados. El malestar que experimenta este subtipo de burnout, tiene origen en su tendencia a aceptar o asumir un volumen de trabajo excesivo y desproporcionado, lo cual le ocasiona dificultades a la hora de dar satisfacción a las propias necesidades personales. Este tipo de malestar, ha sido señalado desde otros estudios como una importante fuente de estrés^{22,23}. En general, cuando hablamos del subtipo frenético, hacemos referencia a un perfil de individuos muy participativos, con un extraordinario nivel de rendimiento a corto plazo, cuyo funcionamiento o modo de actuar se orienta de acuerdo a un modelo ideal interno, con rasgos incluso hedonistas u obsesivos, encarnados en los prototipos del trabajador seguro de sí mismo, dominante y sociable, o en el empleado muy aplicado, diligente y preciso¹¹.

El subtipo de burnout denominado sin-desafíos, estaría constituido por empleados indiferentes y aburridos, que padecen falta de desarrollo personal en su puesto de trabajo. Por indiferencia, entendemos la despreocupación, falta de interés y ausencia de ilusión por las tareas; el aburrimiento, es la vivencia del

trabajo como algo mecánico, rutinario, y con poca variedad de actividades; y la falta de desarrollo personal, es la percepción de que el trabajo actual no posibilita el desarrollo de las capacidades o talentos personales, junto con un fuerte deseo de entregarse a otro trabajo en el que puedan actualizarse mejor. En este tipo de burnout, el malestar, proviene principalmente de la insatisfacción causada por las tareas que han de ser desempeñadas. Esto, es debido a la percepción de escasas oportunidades de realización personal en el puesto, lo cual ha sido señalado desde varios modelos, como un componente nuclear del burnout^{22,24-28}. En resumen, el trabajador sin-desafíos, sufre seriamente la ausencia de identificación respecto a las tareas, tal vez como consecuencia de una idea distorsionada del posible uso de sus habilidades, y llega incluso a perder el sentido de la proporción al considerar los éxitos alcanzados, minimizándolos en exceso^{15,18}.

El subtipo de burnout desgastado, estaría compuesto de trabajadores caracterizados por el abandono, la sensación de falta de control sobre los resultados de su trabajo, y la percepción de falta de reconocimiento por sus esfuerzos. El abandono, se refiere a la desatención o negligencia como respuesta ante cualquier dificultad en las tareas; la falta de control, es la sensación de indefensión o impotencia, como resultado de tratar con muchas situaciones que se encuentran mas allá del propio control; y la falta de reconocimiento, es la creencia de que en la organización donde se trabaja no se tienen en cuenta el esfuerzo y la dedicación. El malestar de este subtipo de burnout, puede ser atribuido a sus condiciones de trabajo, fundamentalmente en lo relativo a la ausencia de predictibilidad de los acontecimientos, y a la falta de reconocimiento del empeño, todo lo cual tiene un gran peso en el proceso de desarrollo del síndrome^{22,29-31}. Es por ello que el subtipo desgastado, se encuentra dominado por la apatía y la desesperanza, y ve gravemente afectado su rendimiento³²⁻³⁵. Hasta tal punto este perfil, pierde de vista su sentido del propósito, que termina por desconectarse del trabajo, restándole importancia^{15,18}.

Los subtipos de burnout frenético, sin-desafíos y desgastado, pueden ser ordenados de más a menos en función de su grado de 'dedicación' hacia las tareas del trabajo, por medio de las propiedades: implicación, indiferencia y abandono, respectivamente. La dimensión dedicación, actúa teóricamente como criterio de clasificación de una tipología del burnout, ya sistematizada.

Validación [Validation]

La idea de una definición operativa del burnout, fundamentada en el intento de diferenciación de síndrome a través de subtipos clínicos, tampoco es del todo

novedosa. Con anterioridad a este trabajo, ya se había tratado de identificar el perfil clínico predominante en cada caso particular de burnout, por medio de un sencillo cuestionario³⁶. No obstante, las propiedades de éste, resultaron insuficientes desde un punto de vista psicométrico. Dicho instrumento, estaba constituido por tres ítems demasiado extensos, uno para cada subtipo de burnout, que no permitían estimar con precisión las características de los subtipos, en toda su amplitud. Por ello, sólo podemos hablar de ese primer intento como de una aproximación exploratoria, con resultados poco concluyentes. Con posterioridad, nuestro equipo de investigación, trató de dar un paso más, presentando una propuesta tipológica de seis ítems, dos para cada uno de los perfiles²⁶. Aunque dicha definición no resultó suficiente, en términos de consistencia interna, su estructura factorial se adecuó al modelo tipológico propuesto teóricamente. También, permitió intuir algunas características diferenciales de los perfiles, respecto al proceso de desarrollo del trastorno, mostrando relaciones de distinto grado entre los subtipos de burnout, y los antecedentes y consecuentes del síndrome^{27,28}.

Gracias al estudio: 'Validación de una nueva definición del burnout'³⁷, presentado en el capítulo cuarto, hemos conseguido alcanzar una definición operativa del síndrome de burnout, mediante la diferenciación de subtipos, por medio del 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-36). Dicho instrumento, contempla los perfiles de burnout utilizando escalas independientes. A su vez, cada una de estas escalas, está formada por tres subescalas, de cuatro ítems cada una, haciendo un total de 36 ítems. La escala correspondiente al subtipo frenético, esta constituida por las subescalas: implicación, ambición y sobrecarga; la escala concerniente al subtipo sin-desafíos, por las subescalas: indiferencia, aburrimiento y falta de desarrollo; y la escala perteneciente al subtipo desgastado, por las subescalas: abandono, falta de control y falta de reconocimiento. Los ítems que dan cuerpo al cuestionario, representan las propiedades de los perfiles según la propuesta teórica original²¹. El tipo de respuesta utilizado, permite indicar el grado de acuerdo o desacuerdo respecto a cada una de las declaraciones, al proporcionar una escala tipo Likert³⁸, con siete opciones de respuesta, puntuadas de 1 ('totalmente en desacuerdo') a 7 ('totalmente de acuerdo').

Hemos visto cómo los ítems del BCSQ-36, superaron la exigencias de la teoría clásica de los test, respecto a su variabilidad, capacidad discriminativa, consistencia interna, estructura factorial y validez convergente^{39,40}. Ahora bien, si comparamos la tendencia central exhibida por las subescalas: implicación y abandono, respecto al resto, podemos decir que ambas ofrecieron resultados más extremos. El valor que las sociedades occidentales conceden al cumplimiento de las obligaciones, en la esfera laboral, permite entender cómo las respuestas a dichas

subescalas, podrían haber sido mediadas por influencia de la deseabilidad social. Por ello, parece recomendable prestar especial cuidado a los aspectos formales relativos a la presentación del cuestionario, asegurando una confidencialidad total a los sujetos participantes. Este detalle, cobra especial relevancia, si para interpretar los resultados, utilizamos puntuaciones de anclaje a nivel escalar.

La escala que representa al subtipo de burnout frenético, mostró relaciones significativas con la dimensión estándar agotamiento, así como con la eficacia, en sentido positivo. A juzgar por sus características, el subtipo frenético, podría constituir un perfil de sujetos con tendencia a la adicción al trabajo⁴¹⁻⁴³. Los empleados altamente comprometidos, presentan una gran probabilidad de desarrollar el burnout^{15,44}, siendo que compromiso y adicción, se relacionan por medio del factor absorción⁴⁵, el cual hace al trabajador cautivo de su propia actividad⁴⁶⁻⁴⁸. Este tipo de adicción, ha mostrado ser un importante factor de riesgo del síndrome, debido al agotamiento que provoca sobre los recursos energéticos del individuo^{49,50}. Por otro lado, la escala correspondiente al perfil sin-desafíos, presentó relaciones significativas con las dimensiones estándar agotamiento e ineficacia, y particularmente con el cinismo. El tipo de trabajador sin-desafíos, ha perdido el interés por su empleo, y se ve afectado gravemente por la insatisfacción, la falta de variedad y la escasez de retroalimentación en las tareas^{25,27,28}. La falta de interés y de gratificaciones, así como el aburrimiento y la percepción de que otros trabajos podrían reconocer mejor el propio talento, han sido establecidos también en otros estudios, como importantes precursores de estrés y de burnout^{22,24,26-28,51}. Por último, la escala perteneciente al perfil desgastado, exhibió fuertes relaciones con las dimensiones estándar agotamiento, cinismo e ineficacia, lo cual sugiere que podría ser el perfil de burnout más próximo a la definición clásica. Su apático abandono, podría estar inversamente relacionado con el vigor, participación y absorción, propiedades opuestas al burnout desde un punto de vista clásico^{34,35}. La desesperación causada por la ausencia de control sobre los resultados, se ha visto altamente asociada a elevados niveles de estrés, agotamiento y despersonalización^{24,29,30,34}, en la línea de nuestros resultados. La ausencia de reconocimiento, también parece producir insatisfacción y burnout, empeorando el clima y la calidad de vida en el trabajo^{31,52}.

Condiciones estructurales, como la naturaleza temporal de los contratos, podrían estar relacionadas con el tipo de burnout experimentado, tal vez por el posible efecto mediador de los diferentes niveles de dedicación hacia las tareas del trabajo. De acuerdo con nuestros resultados, los empleados temporales, presentarían mayores puntuaciones en el subtipo de burnout frenético, caracterizado por un nivel de dedicación excesivo, mientras que los empleados

permanentes, mostrarían mayores puntuaciones en los subtipos sin-desafíos y desgastado, con niveles de dedicación más bajos. Por el contrario, no fueron encontradas diferencias entre los subtipos en función del sexo.

En general, este trabajo ha sido el primero en producir una definición operativa del burnout, que permite diferenciar subgrupos clínicos, algo que resulta de vital importancia para la comprensión cabal del síndrome, puesto que no todos los individuos parecen presentar las mismas características y prognosis. La convergencia entre la definición tipológica y la definición clásica del burnout, parece ser mayor, cuanto menor es el grado de dedicación sobre las tareas. El hecho de introducir distintos perfiles de burnout, en función de su nivel de dedicación, extiende la definición sintomática clásica al uso^{1,7,53}, permitiendo incorporar aspectos importantes para la prevención y el tratamiento.

Factores de riesgo [Risk factors]

Con el estudio: 'Factores de riesgo asociados a diferentes tipos de burnout'⁵⁴, presentado en el capítulo quinto, hemos sugerido la existencia de asociaciones entre los distintos perfiles de burnout y algunas características sociodemográficas y ocupacionales generales, de forma congruente con la definición del síndrome a través de subtipos clínicos. En un primer momento, estas posibles relaciones fueron planteadas de forma heurística, a partir del análisis²¹ de los casos clínicos presentados por Farber^{14-19,36}. Con posterioridad, fueron precisadas varias hipótesis a contrastar, apoyándonos en el patrón de asociaciones descubiertas en el estudio anterior, entre las características de los subtipos y las dimensiones estándar, así como en las relaciones observadas en otros trabajos, entre las dimensiones estándar y algunas variables ocupacionales generales.

La firme convergencia advertida entre el subtipo frenético y la dimensión estándar agotamiento³⁷, así como las relaciones observadas entre el burnout en general y la carga de trabajo como antecedente del síndrome⁵⁵⁻⁵⁸, hicieron pensar que, un factor de riesgo ocupacional específico de este perfil, podría ser el número de horas trabajadas a lo largo de la semana, como medida de las obligaciones adquiridas. Los resultados de nuestro estudio, confirmaron tal hipótesis, de modo que una mayor cantidad de horas semanales de trabajo, se vio asociada a una probabilidad mayor de presentar altas puntuaciones en el subtipo de burnout frenético. Este resultado, es congruente con el planteamiento expuesto arriba, así como con la propia definición del perfil frenético, caracterizado por una gran implicación. Por otro lado, se ha dicho que los sentimientos de culpa que acompañan al burnout⁵⁹⁻⁶¹, podrían constituir un elemento esencial en la

cronificación del síndrome, por medio de un mecanismo de retroalimentación positiva^{44,62}. El sentimiento de culpa que lleva asociado el tipo de burnout frenético, gira en torno a la perspectiva de no poder alcanzar los objetivos previamente establecidos²¹. A causa de la ambición y la necesidad de logros que lo caracterizan, este perfil parece adoptar un patrón de afrontamiento activo, que le lleva a invertir todo el esfuerzo necesario hasta superar las dificultades. Un punto esencial de la fenomenología de este perfil, vendría a ser pues, el hecho de tratar de alcanzar los objetivos propuestos, con particular vehemencia.

La sólida convergencia observada entre el subtipo sin-desafíos y la dimensión estándar cinismo³⁷, así como las relaciones existentes entre el burnout en general y algunos factores antecedentes del síndrome, como la monotonía o las características de la tarea^{24,27,28}, hicieron pensar que tal vez un factor de riesgo ocupacional de este subtipo de burnout, podría ser el hecho de dedicarse mayoritariamente a ocupaciones de índole burocrática, con tareas rutinarias o repetitivas. Los resultados del estudio confirmaron tal hipótesis, puesto que el personal de administración y servicios, obtuvo un riesgo mayor de presentar el subtipo de burnout sin-desafíos, comparado con aquellas ocupaciones más creativas como la docencia o la investigación. Este resultado es coherente con la definición general del perfil sin-desafíos, caracterizado por el desinterés, el tedio y la percepción de ausencia de gratificaciones a nivel personal. Dicho perfil, parece encontrarse atrapado en su propia ocupación laboral, está desencantado por las características de la tarea que ha de desempeñar y presenta sentimientos de culpa, por la ambivalencia que le generan sus deseos de cambio²¹. En general, parece haber perdido de vista su derecho natural a experimentar necesidades de desarrollo o crecimiento personal y profesional, tratando de perseguirlas^{15,21}.

La fuerte convergencia reconocida entre el subtipo de burnout desgastado y la dimensión estándar ineficacia³⁷, así como las relaciones observadas entre el burnout en general y la exposición a entornos que no favorecen la satisfacción o el compromiso⁶³⁻⁶⁵, permitieron plantear la hipótesis de que tal vez un factor de riesgo ocupacional específico del perfil desgastado, podría ser el tiempo de servicio dentro de una misma estructura organizativa, como medida del posible efecto del sistema de contingencias. Los resultados del estudio, confirmaron esta hipótesis, ya que aquellas personas que más tiempo llevaban trabajando dentro de la estructura universitaria, presentaron un riesgo mayor de padecer altas puntuaciones en el perfil desgastado, lo cual permite comprender el impacto negativo que una determinada organización del trabajo, puede ejercer sobre los empleados⁶⁴. Aunque no siempre este tipo de influencia habrá de ser necesariamente negativa^{55,66}, y en última instancia, dependerá del tipo de

ordenamiento^{67,68} y de los estilos de comunicación establecidos en el lugar de trabajo⁶⁵. En general, nuestros resultados, van en la línea de lo expuesto en la definición del subtipo desgastado, un perfil de burnout caracterizado por sentimientos de impotencia y ausencia de gratitud, que adopta estilos de afrontamiento pasivo, y que se siente culpable por no cumplir con las responsabilidades de su puesto²¹.

En general, el establecimiento de relaciones entre los distintos subtipos de burnout y las variables ocupacionales mencionadas, ha facilitado la comprensión de las singularidades de los perfiles, permitiendo avanzar igualmente en su reconocimiento, al introducir variables de fácil evaluación o identificación.

Una definición breve [A brief definition]

La definición incluida en el BCSQ-36, puede resultar muy útil para la evaluación de aspectos determinantes del burnout, tanto desde un punto de vista clínico, como también organizativo³⁷. Esto es así, puesto que provee un marco interpretativo del síndrome, que supera las posibilidades ofrecidas por la mera evaluación individual de los síntomas clásicos¹. El BCSQ-36, permite identificar diferentes fuentes de estrés o de malestar en el trabajo, relativas al individuo, a la tarea a desempeñar o a la propia organización. Es por ello, que extiende las posibilidades de intervención sobre dichas esferas, de manera simultánea, ampliando la probabilidad de obtener resultados exitosos^{4,8,69}.

La propuesta tipológica del burnout, desarrollada en la presente disertación, se encuentra bajo el área de influencia de las teorías del intercambio social. Desde esta perspectiva, el bienestar en el puesto de trabajo, se ve condicionado por la relación entre los esfuerzos invertidos y las recompensas obtenidas. En este sentido, el burnout lleva consigo cierta percepción de desventaja o falta de proporción, entre lo que uno invierte, y lo que recibe a cambio^{17,70}. Ante este desequilibrio, el subtipo frenético, reaccionaría trabajando más y más hasta llegar al agotamiento, tratando así de maximizar las ganancias. En el otro extremo, el subtipo desgastado, reduciría el esfuerzo o la dedicación y actuaría de forma negligente, tratando de minimizar al máximo sus inversiones. El subtipo sin-desafíos, afrontaría el desequilibrio con una actitud indiferente, ante la idea de que el valor personal que aporta al trabajo, dada su capacidad o su formación, es excesivo respecto a las gratificaciones que obtiene en contrapartida^{14,17,18}. En el fondo, todos ellos se encuentran inmersos en un intento por restaurar el equilibrio perdido, entre lo que dan y lo que reciben, puesto que dicho desequilibrio resulta muy estresante⁷¹, y de hecho se encuentra en la base de una gran cantidad de

trastornos emocionales^{70,72,73}. Ninguno de los subtipos es capaz de ver con claridad, que un individuo absolutamente entregado al trabajo, que excluye todo lo demás, se sentirá inevitablemente objeto de abusos, mientras que un sujeto que reduce drásticamente su compromiso, no encontrará recompensas suficientes que hagan del trabajo algo que merezca la pena¹⁷.

Esta nueva forma de entender el burnout, dominada por una visión fenomenológica del trastorno, aclara en buena medida su etiología, aunque a costa de extender el concepto hacia áreas que, desde un punto de vista clásico, serían consideradas más bien prodromos del síndrome. Con objeto de acercar la perspectiva tipológica a un entendimiento clásico del trastorno, mediante el estudio: 'Una definición breve del burnout mediante subtipos clínicos'⁷⁴, se ha presentado el 'Cuestionario de Subtipos Clínicos de Burnout' (BCSQ-12), como una nueva definición que podría constituir una suerte de intersección entre ambas aproximaciones. El BCSQ-12, está formado por las dimensiones: sobrecarga, falta de desarrollo personal y abandono, pertenecientes a los subtipos: frenético, sin-desafíos y desgastado, respectivamente. Se trata de los factores del modelo tipológico, con mayor validez convergente respecto a la definición estándar, al mismo tiempo que mayor validez discriminante presentan a la hora de diferenciar los perfiles³⁷. Dichas dimensiones, han mostrado una excelente fiabilidad por consistencia interna, así como una gran validez de constructo y una buena capacidad discriminativa, en relación a la conceptualización clásica.

La sobrecarga, es un factor etiológico del burnout que ha sido referido en reiteradas ocasiones⁷⁵⁻⁷⁷, y constituye una propiedad característica del subtipo frenético^{21,37}. Como ya se ha dicho, este perfil asume un volumen de trabajo excesivo, dejando de lado las necesidades personales e incluso la propia salud^{14,18,19}. En un intento por conseguir los mejores resultados, los trabajadores incluidos en este perfil, se ven sometidos a un nivel de demandas y compromisos tan alto, que terminan agotados⁷⁸⁻⁸⁰. La falta de desarrollo, propia del subtipo sin-desafíos, es una condición que puede estar impuesta en gran medida por las características de la tarea, y se ve acentuada por una forma de trabajar superficial o sin interés^{21,37}. Lleva consigo cierta ausencia de significado, y se encuentra muy relacionada con la presencia de actitudes cínicas, constituyendo un importante factor de riesgo del burnout^{22,27,81}, debido a los sentimientos de frustración que origina por la escasez de desafíos⁸². El abandono, es característico del subtipo desgastado, ya que dicho perfil intenta optimizar las recompensas obtenidas en el trabajo, mediante la reducción de los esfuerzos invertidos^{14,18,19}, y se ve acentuado por las experiencias de indefensión aprendida, en el contexto organizativo⁵⁴. Lleva consigo una fuerte ruptura del compromiso, debido a la erosión de las expectativas

de eficacia que supone la ausencia de control, así como por la percepción de falta de reconocimiento de los esfuerzos^{79,83}. El resultado, es una situación que plantea al empleado serias dificultades a la hora de modular y mantener conductas responsables, con un acusado descenso de la productividad^{84,85}.

Las dimensiones: sobrecarga, falta de desarrollo personal y abandono, que constituyen el BCSQ-12, permitieron ir más allá que las dimensiones estándar: agotamiento, cinismo e ineficacia, en el establecimiento de diferencias entre las distintas ocupaciones de los trabajadores de universidad. Esto, permitió comprender mejor el tipo de malestar que podría ser característico en cada una de ellas. Así, el personal docente e investigador, mostró los mayores niveles de sobrecarga, sugiriendo cierta tendencia a la escasez de tiempo y al agotamiento, como consecuencia de la persecución de objetivos. Sin embargo, el personal de administración y servicios, presentó las mayores puntuaciones en falta de desarrollo, tal vez como consecuencia de la monotonía propia de un trabajo burocrático y mecánico. Los becarios, fueron el estrato con menores niveles de abandono, probablemente como resultado de su escasa exposición temporal a la rigidez de la estructura organizativa, de la institución para la cual trabajan.

El BCSQ-12, parece ser un instrumento oportuno para la identificación breve del tipo de burnout experimentado, con adecuadas propiedades desde un punto de vista estructural, y con una validez convergente-discriminante más que satisfactoria. Si tenemos en cuenta la serie de inconsistencias presentadas por los cuestionarios estándar al uso^{44,86}, el BCSQ-12, se presenta como una definición del burnout alternativa y tal vez más sólida, desde un punto de vista psicométrico. No obstante, es necesario continuar investigando en otro tipo de ocupaciones laborales. La evidencia muestra que los niveles de satisfacción en el trabajo, tienen una influencia decisiva sobre la salud de los trabajadores⁹. La investigación futura aclarará si esta nueva perspectiva, más centrada en el tipo de malestar experimentado, es capaz de producir intervenciones efectivas sobre el burnout y sobre el bienestar general de los trabajadores.

Poder explicativo [Explanatory power]

Para poder alcanzar un entendimiento completo del síndrome de burnout, hemos de prestar especial atención, al modo a través del cual cada individuo se ve afectado crónicamente, por la pesadumbre de sufrir estrés en el trabajo^{87,109}. Para ello, es necesario tomar en consideración las particularidades del trabajador, su personalidad y estilos de afrontamiento, pero también las características de la tarea que ha de desempeñar, así como las del propio entorno organizativo. Y es

que el burnout, es el resultado de una práctica social, en un determinado contexto cultural y económico, por lo que presenta cierta complejidad⁸⁸. Gracias al análisis de los casos clínicos presentados por Farber, hemos identificado diferentes vías a través de las cuales se manifiesta el burnout. Todas ellas, pueden ser evaluadas mediante el BCSQ-36, a partir de una valoración completa los subtipos: frenético, sin-desafíos y desgastado, o utilizando la versión reducida del BCSQ-12, mediante la estimación de las propiedades: sobrecarga, falta de desarrollo personal y abandono, características de los tres subtipos, respectivamente.

La definición clásica del burnout, exhibe una visión unitaria (aunque tridimensional) del síndrome, mediante las dimensiones: agotamiento, cinismo e ineficacia, fuertemente asociadas entre sí^{1,7,53}. Por el contrario, la aproximación tipológica, contrasta fuertemente con dicha definición, al reconocer diferentes formas de manifestar el trastorno, posibilitando así la evaluación y el desarrollo de intervenciones más ajustadas a las características de cada caso^{37,54,74}. Con ello, no se pretende diferenciar entre casos clínicos y no-clínicos de burnout, sino que lo que se intenta es poder aportar información relevante, desde un punto de vista clínico^{14-19,21,36}. Para ello, esta nueva perspectiva del burnout, trata de subrayar algunas características modificables de los subtipos, que han sido descritas en la literatura como factores antecedentes de los síntomas clásicos, y que contribuyen al desarrollo diferencial del trastorno. Puesto que la extensión de la definición presentada en el BCSQ-36 y BCSQ-12, resulta sensiblemente distinta, con el estudio: 'Poder explicativo de dos modelos de tipos de burnout', se propuso estimar y comparar la capacidad explicativa de ambas definiciones, la extensa y la breve, evaluando la contribución individual de las propiedades que las constituyen, con objeto de establecer su posible utilidad diferencial.

Tanto el BCSQ-36 como el BCSQ-12, fueron capaces de capturar una gran proporción de la información, contenida en las dimensiones criterio de la definición clásica del burnout. La capacidad explicativa de ambos modelos, resultó más que satisfactoria, y como era de esperar, la del BCSQ-36 fue mayor al compararla con la ofrecida por el BCSQ-12. Todos los factores de ambos modelos, contribuyeron de forma significativa, en la explicación de alguna de las dimensiones clásicas. En especial, la falta de control y la indiferencia, contribuyeron de forma significativa en la explicación de todas ellas, por lo que podrían jugar un importante papel en el desarrollo sintomático del síndrome de burnout, en términos generales.

La sobrecarga, propia del subtipo frenético, fue el factor que más contribuyó en la explicación del criterio agotamiento, aunque la falta de control, también lo explicó en buena medida. Este resultado, es coherente con el modelo de las demandas y el control⁷⁹, según el cual la combinación de altas demandas y un

control bajo sobre ellas, causaría un gran malestar entre los empleados. También va en la línea de lo expuesto en el modelo de las áreas de la vida laboral⁸⁹, puesto que dicho modelo, propone ambos factores como importantes correlatos del burnout. Asimismo, se encuentra presente en el recientemente actualizado modelo de las demandas y los recursos⁷⁷, que añade los recursos personales a todo lo anterior, como un importante mediador en el proceso de desarrollo del síndrome. En definitiva, nuestros hallazgos, permiten observar el estrés crónico bajo el prisma del exceso de trabajo y de la falta de control sobre los resultados, o sobre la toma de decisiones, con la subsiguiente posible aparición de fatiga, y con el desarrollo en última instancia de trastornos de tipo emocional^{24,90-94}.

Por otra parte, la indiferencia inherente al subtipo sin-desafíos, fue la característica de los subtipos que más contribuyó en la explicación del criterio estándar cinismo, siendo que la falta de desarrollo, propia del mismo perfil, también lo hizo de manera importante. Para comprender este resultado, tenemos que entender que, del mismo modo que un nivel de demandas excesivo, puede resultar "tóxico" para el individuo⁹⁵, un nivel de demandas laborales bajo, puede dar lugar a la ausencia de nuevos desafíos en el puesto, creando indiferencia, aburrimiento y sentimientos de frustración⁸². Esta posibilidad, ha sido apuntada ya en varios estudios, todos los cuales coinciden en señalar que la monotonía puede resultar estresante, llegando a funcionar como un importante antecedente del burnout^{27,28,51}. La indiferencia y el cinismo, por su parte, podrían reducir aún más la satisfacción, el interés y la productividad, en este tipo de trabajadores^{31,96,97}.

Por último, el abandono del subtipo desgastado, fue la propiedad que mejor explicó el criterio clásico ineficacia, aunque también lo consiguió la falta de ambiciones. Estos resultados, pueden ser explicados en el marco de la teoría de la cognición social, si consideramos que en ausencia de auto-eficacia percibida el rendimiento puede verse gravemente amenazado, quizá como resultado de la ausencia de perspectivas de promoción o mejora, o por las dificultades que el individuo puede encontrar a la hora de manejar el estrés^{84,98-101}. Tal y como propone el modelo demandas-recursos, el tipo de respuesta frecuentemente adoptada por los trabajadores con burnout, cuando han de afrontar sentimientos de frustración en el trabajo, suele ser una progresiva disminución de los niveles de compromiso⁷⁷. Este aspecto del síndrome, puede ser la piedra angular que tal vez permita explicar las diferencias entre los subtipos, desde un punto de vista procesual o longitudinal^{21,37}. Dichas diferencias, contempladas en el BCSQ-36 y BCSQ-12, no son tenidas en cuenta en los modelos previos del burnout.

En general, el BCSQ-36, podría ser utilizado en los servicios de salud mental, puesto que provee una buena cantidad de información, útil a la hora de establecer

cursos específicos de intervención terapéutica. Por su parte, el BCSQ-12, podría ser utilizado como una medida de cribado en las consultas de atención primaria, debido a su gran simplicidad y funcionalidad. Ambas definiciones, al incorporar las percepciones del individuo sobre sus condiciones de trabajo, permiten una descripción de la historia de cada caso particular, en función del tipo de malestar experimentado, por lo que resultan más comprensivas que la definición estándar. Las diferencias observadas entre las propiedades que conforman los subtipos, a la hora de explicar las dimensiones estándar, sugieren una serie de patrones que ayudan a entender la idiosincrasia particular de cada perfil clínico, favoreciendo el desarrollo de tratamientos específicos. Los resultados de las intervenciones sobre el burnout disponibles hasta el momento, no son del todo prometedores, aunque se necesita más investigación al respecto para concluir con suficiente apoyo empírico^{4,10,69}. Tal vez el diseño de tratamientos más específicos, fundamentados en una definición del síndrome utilizando subtipos clínicos, pueda incrementar la efectividad de las futuras intervenciones.

Una definición para estudiantes [A definition for students]

Aunque el burnout tiende a ser más prevalente en profesiones de tipo asistencial o de servicios, en general, ha sido observado en todo tipo de ocupaciones¹⁰², incluso entre estudiantes universitarios¹⁰³. En éstos, parece estar presente de manera especial en carreras que prestan servicios sanitarios, como la medicina¹⁰⁴ y la enfermería¹⁰⁵. Los estudiantes odontólogos, también presentan un gran riesgo de desarrollar el trastorno, debido a la naturaleza de su práctica clínica. El período de formación de los dentistas, y particularmente sus prácticas, han sido documentados como importantes fuentes de estrés¹⁰⁶⁻¹⁰⁸. Debido a la validez que el BCSQ-12 presenta, para el reconocimiento de los diferentes subtipos de burnout⁷⁴, con el estudio: 'Una definición breve de los subtipos de burnout para estudiantes', hemos propuesto una adaptación de dicho instrumento para ser aplicado entre la población estudiantil. Utilizando una muestra de estudiantes de odontología, fueron evaluadas la estructura factorial del nuevo cuestionario, su consistencia interna y su validez convergente-discriminante. También fueron estimados posibles factores ocupacionales de riesgo, asociados al desarrollo de cada uno de los perfiles de burnout, en su consideración abreviada.

Este ha sido el primer estudio en el que se ha propuesto una adaptación abreviada del modelo tipológico del burnout, para su posible aplicación en estudiantes, por medio del 'Cuestionario de Subtipos Clínicos de Burnout Versión estudiantes' (BCSQ-12-SS). Los ítems que componen esta adaptación, mostraron buenas propiedades psicométricas^{40,109}. La estructura factorial del BCSQ-12-SS,

replicó la propuesta teórica original fundamentada en el cuestionario BCSQ-12⁷⁴, con tres claros componentes, a saber: sobrecarga, falta de desarrollo personal y abandono. Todos ellos, mostraron una consistencia interna adecuada, lo cual evidencia la precisión del instrumento. Por otro lado, el nivel de asociación encontrado entre estos componentes, fue sensiblemente menor al hallado entre ellos y las dimensiones estándar, lo cual habla en favor de su validez discriminante³⁹. La validez convergente entre las dimensiones sobrecarga y agotamiento, entre falta de desarrollo personal y cinismo, y entre abandono e ineficacia, resultó moderadamente alta en todos los casos, replicando lo hallado en otros estudios con muestras multiocupacionales de trabajadores^{37,74}.

Ya hemos dicho que la sobrecarga, es una propiedad fundamental del tipo de burnout frenético, y en tal caso, se encuentra presente entre aquellos estudiantes ambiciosos que, tratando de atender las demandas de su actividad estudiantil, se ven comprometidos hasta el límite de abandonar incluso la salud y la vida personal^{21,26,37}. Esta propiedad, además de encontrarse asociada de forma directa con el estándar agotamiento, también se vio relacionada con la variable ocupacional 'número de horas semanales dedicadas al estudio', de manera que, ante una mayor cantidad de horas de estudio, se observó una probabilidad mayor de presentar altas puntuaciones en sobrecarga. Este resultado, se encuentra en la línea de la propia definición del perfil frenético, así como en la de los resultados obtenidos en otros estudios, con otro tipo de muestras^{54-58,110}.

La falta de desarrollo, es una propiedad central del subtipo sin-desafíos, y está presente en aquellos estudiantes que no se realizan personalmente en sus estudios, y que consideran incluso la idea de cambiarse a otra carrera que permita expresar mejor su talento^{21,26,37}. Además de relacionarse con la dimensión estándar cinismo, la falta de desarrollo, se vio asociada también con la variable campus de procedencia, de modo que los estudiantes pertenecientes a la universidad de mayor tamaño, obtuvieron una probabilidad mayor de desarrollar altas puntuaciones en falta de desarrollo. Este resultado, podría ser explicado en función de la importancia concedida a los aspectos más formales de la enseñanza, posiblemente mayor en aquellos campus de tamaño extenso, ya que la realización de tareas de tipo mecánico o rutinario⁵⁴, parece promover el desarrollo del burnout, en especial del perfil sin-desafíos^{25,27,28}.

El abandono, característico del subtipo de burnout desgastado, estaría presente en aquellos estudiantes con sentimientos de falta de control sobre los resultados del estudio, y de falta de reconocimiento de sus propios esfuerzos, por lo que tenderían a abandonar finalmente sus responsabilidades^{21,26,37}. Además de relacionarse con la dimensión estándar ineficacia, el abandono, se vio asociado al

número de asignaturas suspendidas en el semestre anterior, de manera que, a mayor cantidad de asignaturas suspensas, mayor fue la probabilidad de presentar altas puntuaciones en abandono. Esto es comprensible, si entendemos que la negligencia suele ser el resultado de adoptar estrategias de afrontamiento pasivo al afrontar los obstáculos, lo cual disminuye la percepción de eficacia y aumenta la tendencia a “tirar la toalla” frente a las dificultades^{84,85,98,99,111,112}.

Los hallazgos encontrados en este estudio resultan interesantes, puesto que refuerzan y complementan los resultados obtenidos en otros trabajos, que han estudiado los tipos de burnout desde una perspectiva ocupacional diferente. En general, el BCSQ-12-SS, representa una mejora respecto a la definición estándar aplicada en estudiantes, puesto que posibilita la caracterización del tipo de burnout experimentado, mediante una rápida identificación de su perfil clínico. Esta labor, se ve facilitada, si tenemos en cuenta también la naturaleza de las asociaciones encontradas entre las propiedades de los perfiles, y las variables ocupacionales referidas arriba. Dichas asociaciones, ayudan a comprender mejor la idiosincrasia de cada uno de los perfiles, favoreciendo el desarrollo de intervenciones preventivas específicas, en un momento clave como es el periodo formativo de los futuros profesionales, tal y como ha sido demandado desde otros estudios^{113,114}.

Limitaciones [Limitations]

El trabajo que hemos venido exponiendo, no está exento de limitaciones. A continuación, vamos a tratar de explicitarlas, al objeto de aclarar el verdadero alcance de los esfuerzos realizados en función de dichas constricciones.

En primer lugar, el marco teórico interpretativo desarrollado inicialmente, no estuvo libre de excepciones, puesto que algunos casos clínicos mostraron una configuración de características, que no se ajustó exactamente al modelo propuesto²¹. Por ejemplo, fueron encontrados sentimientos de falta de control en un caso de burnout clasificado como frenético¹⁸, así como de falta de reconocimiento en un caso de burnout sin-desafíos¹⁴, siendo que ambas características son más bien propias del subtipo desgastado. También, se observó que algunos sujetos con este último perfil, paradójicamente, podrían haber sido personas muy dedicadas al comienzo de su carrera profesional¹⁵. Y es que para “quemarse”, primero hay que “encenderse”, es decir, que un elevado compromiso en un primer momento, no se encontraría libre de derivar más tarde en un grave proceso de desgaste y pérdida de significado⁴⁴. Esta idea, fue subrayada ya por Farber tras sus primeras observaciones clínicas, al señalar la posibilidad de que los sujetos afectados, pudiesen verse desplazados en el tiempo, de un perfil clínico

a otro¹⁴⁻¹⁹. Si entendemos la tipología del burnout como una sucesión de etapas, caracterizadas por una progresiva disminución en los niveles de dedicación, podríamos facilitar la integración de las inconsistencias mencionadas en torno a un eje longitudinal temporal. Esto, también nos permitiría contemplar el subtipo frenético, el menos aquejado por los síntomas del burnout desde un punto de vista clásico, e incluso del perfil sin-desafíos, algo más afectado aunque no tanto como el perfil desgastado, como fases preliminares del síndrome en las que ya se manifiesta de algún modo el trastorno, por lo que necesariamente habrían de ser reconocidas, algo que los modelos estándar no parecen llevar a buen término. No obstante, hasta el momento, la hipótesis longitudinal es una interpretación de la tipología que no ha podido ser debidamente contrastada, por cuestiones metodológicas de diseño.

La naturaleza transversal del diseño utilizado en los trabajos presentados, exige ser cautelosos, a la hora de establecer conclusiones sobre la etiología de los subtipos, o sobre su posible desarrollo longitudinal, en torno a un orden decreciente de los niveles de dedicación. Es cierto que, las variables ocupacionales propuestas como factores de riesgo, ejercieron su efecto con anterioridad al momento de la medida, cumpliendo así con la premisa de precedencia temporal, que exige todo establecimiento de relaciones causales entre distintas variables¹¹⁵. Incluso fueron observadas asociaciones con tendencia lineal tipo dosis-respuesta entre ellas, lo cual soporta el establecimiento de dichas hipótesis como heurístico de cara a futuras investigaciones, que se propongan como meta establecer un esquema explicativo más sólido^{116,117}. Pero, por el momento, es necesario desarrollar estudios longitudinales que utilicen varios momentos de medida, a modo de oleadas, al objeto de contrastar adecuadamente todas estas propuestas.

En otro orden de cosas, hemos visto que las encuestas conducidas a través de Internet, obtuvieron una tasa de respuesta relativamente baja, habiendo recibido solamente uno de cada cuatro envíos. Dicha proporción, podría parecer reducida, pero en realidad se encuentra dentro de lo esperado, si consideramos los resultados habitualmente obtenidos en este tipo de encuestas on-line^{118,119}. Debido a que éste inconveniente, fue tenido en cuenta ya en el diseño del estudio, los tamaños muestrales finalmente alcanzados fueron elevados, y se encontraron dentro de lo estimado inicialmente para las diversas pruebas de contraste, permitiendo llevar adelante cada análisis con la necesaria potencia estadística^{120,121}. Hemos de reconocer, que la tasa de respuesta obtenida, podría traer consigo sesgos de representatividad si tratásemos de establecer valores de prevalencia, pero no parece afectar del mismo modo sobre la evaluación de patrones, o de relaciones, entre diferentes variables^{118,119}.

Otra cuestión a tener en cuenta, fueron las diferencias encontradas en las tasas de respuesta en función del estrato ocupacional, ya que el personal docente e investigador, resultó menos participativo que el resto, lo cual podría afectar también a la representatividad de la muestra. La menor participación del personal docente e investigador, pudo estar determinada por su tendencia a la sobrecarga, mientras que el personal de administración y servicios, pudo ser más participativo, en un intento por romper con la monotonía de las tareas que ha de desempeñar. Los becarios, de forma congruente con su bajo nivel de abandono, fueron el grupo con tasas de respuesta más elevadas. Así pues, los diferentes niveles de participación, obtenidos en función de la categoría profesional, podrían ser explicados por el tipo de burnout experimentado, de forma mayoritaria, en cada una de ellas⁷⁴, algo que habrá de ser necesariamente tenido en cuenta, cuando queramos proyectar el reclutamiento de participantes, en futuros estudios¹²².

Otra limitación observada, tiene que ver con el hecho de que la muestra de sujetos participantes, estuviese compuesta exclusivamente por trabajadores y estudiantes del ámbito universitario, lo cual circunscribe la validez externa de las conclusiones del estudio, a un tipo de organización funcional muy concreta. De todos modos, también hemos de subrayar el marcado carácter multi-ocupacional de la muestra, formada por individuos en puestos de trabajo con características muy diversas, con un elevado riesgo de desarrollo del burnout por su alto contacto cara a cara con otras personas, lo cual de alguna manera proporciona mayor amplitud a las posibilidades de generalización de nuestros resultados.

También hemos de reconocer, que la validación del modelo tipológico del burnout, fue llevada a cabo en términos exclusivamente psicométricos, sin ningún referente criterial clínico que permitiera demostrar la validez de pronóstico. Debido a la inexistencia de tales criterios para el síndrome de burnout, en el panorama diagnóstico psicopatológico actual^{123,124}, y a modo de aproximación, se utilizó el comúnmente aceptado estándar clásico proporcionado por el cuestionario Maslach Burnout Inventory General Survey (MBI-GS), haciendo uso del baremo poblacional español, tal y como viene siendo habitual^{7,125}. Por otra parte, hemos de decir, que no fueron tomadas medidas test-retest sobre las variables, por lo que tampoco fue posible cuantificar este aspecto de la fiabilidad de los factores, que componen los modelos propuestos.

Por último, no hemos de olvidar que las variables objeto de análisis, fueron auto-reportadas, por lo que las respuestas podrían encontrarse influidas por el efecto de la deseabilidad social, tal y como ha sido señalado ya para el caso de las dimensiones: implicación y abandono. La deseabilidad social, como distorsión de las respuestas ofrecidas, ha sido definida como una tendencia a contestar a los

ítems respondiendo a presiones sociales o normativas, en lugar de proporcionar un auto-informe verídico¹²⁶. Está formada por dos dimensiones, el manejo de impresiones, como un intento de adaptar intencionadamente la imagen de uno mismo, con objeto de obtener una visión favorable por parte de los demás; y el auto-engaño, como una tendencia no intencionada de describirse a sí mismo de un modo favorable, mediante auto-descripciones sesgadas¹²⁷. En el ámbito de la psicología del trabajo, los efectos del manejo de impresiones parecen ser más relevantes. Su principal consecuencia, sería el aumento de las puntuaciones en las dimensiones que están relacionadas positivamente con el desempeño laboral, y la reducción de las puntuaciones en aquellas dimensiones que se relacionan negativamente con el desempeño¹²⁸. Ya hemos dicho, que este aspecto, habrá de ser necesariamente tenido en cuenta, puesto que puede resultar determinante a la hora de establecer puntos de anclaje, sobretodo a nivel escalar. De todos modos, parece más apropiada una visión diagnóstica poblacional normativa, orientada específicamente, tal y como hemos venido planteando. También, parece recomendable asegurar previamente la confidencialidad de los resultados, prestando especial atención y cuidado a la forma de presentación del cuestionario.

Futuras líneas de investigación [Future research]

Los resultados obtenidos en el presente trabajo, permiten la apertura de prometedoras líneas de investigación. En primer lugar, se abre la posibilidad de desarrollar nuevas intervenciones, preventivas o de tratamiento, ajustadas a las características de los perfiles de burnout identificados. Cada uno de ellos se encuentra afectado por diferentes fuentes de malestar, en función del mayor o menor grado de dedicación con el que se afrontan las dificultades del trabajo. Dado el actual estado en ciernes de las actuaciones terapéuticas sobre el burnout⁸⁻¹⁰, parece interesante comprobar si es posible mejorar su relación costo-efectividad, ajustándonos a este criterio de clasificación tipológica.

En este sentido, el subtipo de burnout frenético, podría beneficiarse de intervenciones enfocadas en la reducción de los niveles de activación, con el propósito de eliminar el malestar generado por la tensión, y para prevenir la fatiga y el agotamiento⁷⁴. Desde una aproximación holística, habríamos de tener en cuenta las causas de su enorme ambición y grandiosidad, así como los sentimientos de culpa asociados a su excesiva necesidad de conseguir metas⁵⁴. Podría ser útil, también, el modelado de conductas asertivas, en orden a poner límites a la aceptación de compromisos, o la enseñanza de un manejo del tiempo que permita atender la satisfacción de las necesidades personales³⁷. En general, la adopción de un estilo de vida saludable, que contemple la realización de

ejercicio físico, la relajación, el control de la respiración, o el descanso, facilitaría el cuidado de la salud de manera integral, y podría resultar de provecho, tal vez, incluso su implementación en el propio lugar de trabajo¹²⁹⁻¹³³.

El subtipo de burnout sin-desafíos podría beneficiarse de aquellas intervenciones enfocadas, fundamentalmente, en la renovación del interés y en la recuperación de la satisfacción, alentando el desarrollo personal en el trabajo mediante el establecimiento de nuevos retos, que resulten significativos desde el punto de vista del individuo⁷⁴. Tampoco habríamos de olvidar el trabajo de reestructuración cognitiva, que supone ayudar a encontrar una posición realista respecto al derecho natural a experimentar necesidades de realización personal, al objeto de aliviar los sentimientos de culpa, asociados a la ambivalencia alimentada por el deseo de cambio⁵⁴. Además, podría resultar beneficioso, enseñar a efectuar las tareas de manera muy consciente, mediante ejercicios de atención plena^{134,135}, reduciendo así el aburrimiento y la apatía asociados a una realización de tipo mecánico⁷⁴. Al tiempo, también podría ser útil la redefinición de las tareas y de los objetivos, con la intención de presentarlos de manera atractiva, significativa y en general, más desafiante.

El subtipo de burnout desgastado, exige el abordaje de los sentimientos de desesperanza, de falta de eficacia y de abandono en el trabajo⁷⁴. Para ello, será necesario tratar de revertir su estilo de afrontamiento pasivo, recuperando la confianza, la seguridad y la sensación de control, hasta alcanzar un desempeño adecuado de las tareas^{84,85}, mitigando de paso los sentimientos de culpa asociados al incumplimiento de las obligaciones⁵⁴. El abordaje de este perfil, exige también intervenir sobre el sistema de contingencias de la propia organización, orientándolo tanto como sea posible hacia la adherencia y el compromiso del trabajador en su puesto, a través de la mejora de procesos mediante los cuales se pueda recuperar el control, como la toma de decisiones, y haciendo posible además el reconocimiento o la obtención de gratificaciones de manera contingente a los esfuerzos invertidos³⁷. Y todo ello, sin perder de vista el propósito de favorecer un clima de trabajo positivo, permitiendo el establecimiento de redes sociales de apoyo, en aras a facilitar una mayor calidad de vida en el trabajo^{31,52}.

Como ya se ha adelantado, el avance o desarrollo del síndrome de burnout, supone una progresiva erosión del compromiso del trabajador^{35,76,77}, algo así como una disminución paulatina en su nivel de atención o dedicación sobre las tareas, avanzando desde el entusiasmo, hasta la apatía. El burnout, aparece típicamente en un primer momento, con la implicación excesiva característica del perfil frenético^{22,44}. Puesto que no es fácil mantener dicho nivel de actividad sin terminar agotado, o resultar afectado⁴⁹, el trabajador parece adoptar cierta

distancia para protegerse^{136,137}, lo cual le alivia del exceso de actividad, pero a costa de sembrar el tipo de frustración emergente en el subtipo sin-desafíos¹³⁸. A la larga, además, este distanciamiento podría reducir la percepción de eficacia, dando paso a estrategias de afrontamiento pasivas, típicamente presentes en el subtipo de burnout desgastado^{84,85,111}. Este paralelismo entre la evolución del síndrome y los diferentes subtipos de burnout¹³⁹, ordenados de mayor a menor grado de dedicación, plantea la posibilidad de entender los subtipos como una sucesión de etapas en el desarrollo del trastorno^{15,21,37}. El futuro contraste de esta hipótesis longitudinal, acompañado de la clarificación del papel que la variable mediadora culpa puede jugar en cada uno de los perfiles^{44,54,62}, tal vez promueva un entendimiento mayor sobre la evolución del síndrome, que el proporcionado por las dimensiones clásicas, tan problemáticas a este respecto.

Otra interesante línea de investigación, podría ser el establecimiento de asociaciones específicas entre los subtipos de burnout y marcadores biológicos del síndrome como la prolactina, el cortisol, la inmunoglobulina A, la actividad de las células naturales asesinas, o los anticuerpos CD₁₆ y CD₅₇. Estos biomarcadores, están relacionados con el funcionamiento del eje hipotálamo-pituitario-adrenal y con el del sistema inmune, cuyo funcionamiento en presencia del burnout, se encuentra en ambos casos sensiblemente afectado, lo cual da lugar a un gran número de patologías¹⁴⁰⁻¹⁴². Tal vez esta línea de investigación, pueda ayudar a comprender algunos aspectos importantes de la psicósomática del burnout, relativos al funcionamiento y desequilibrio de dichos sistemas.

Recientemente, se ha puesto sobre la mesa, el hecho de que la psicología ha dedicado mayor empuje a la investigación de la enfermedad mental, que al estudio del adecuado bienestar de los individuos¹⁴³. De hecho, esta aseveración no resulta del todo arbitraria, puesto que dicho sesgo, puede ser observado si atendemos al número de publicaciones que versan sobre estados negativos de la mente, respecto a estados positivos, con una ratio de 14:1¹⁴⁴. Adoptar un enfoque psicológico positivo, en el sentido de intentar reconstruir las cualidades positivas de los individuos¹⁴⁵, que favorecen un compromiso equilibrado con el entorno laboral¹⁴⁶, supondría ampliar nuestro foco de investigación, hacia la exploración de los correlatos positivos contrarios a los distintos subtipos de burnout. Esta nueva orientación, tal vez podría permitir una comprensión plena de lo que significan los subtipos de burnout, abriendo paso al reconocimiento y la potenciación de sus cualidades opuestas. También, podría aportar luz sobre el significado del término compromiso, en un sentido equilibrado, como un posible constructo antagónico al burnout, aunque no diametralmente opuesto.

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Conclusiones [Conclusions]

“Cuando, con una copa de vino en la mano, se levantaba de la mesa y pronunciaba un brindis con encantadores gestos, complacientes modales y palabras brillantemente escogidas que hacían reír a los presentes y cosechaban entusiasmados aplausos, aún podía parecer el Thomas Buddenbrook de antaño pese a la palidez de su rostro; mucho más difícil le resultaba dominarse cuando se quedaba a solas y en silencio. En tales momentos, le asaltaban el cansancio y el hastío más profundos, nublando sus ojos y apoderándose por completo de las fuerzas que mantenían en tensión los músculos de su cara y la postura de su cuerpo. Un único deseo le invadía entonces: ceder a aquella desesperante apatía, salir huyendo de inmediato y llegar a casa para descansar la cabeza sobre una almohada fresca”.

(Thomas Mann, Los Buddenbrook, 1901)

1. Propuesta teórica [Theoretical proposal]

1.1. El subtipo de burnout 'frenético', presenta: implicación, ambición y sobrecarga. La 'implicación', es la inversión de todo el esfuerzo necesario para superar las dificultades; la 'ambición', la necesidad de obtener grandes logros; la 'sobrecarga', el descuido de la salud y de la vida personal persiguiendo objetivos.

1.2. El subtipo 'sin-desafíos', muestra: indiferencia, aburrimiento y falta de desarrollo. La 'indiferencia', es falta de ilusión por las tareas; el 'aburrimiento', la vivencia del trabajo como algo rutinario; la 'falta de desarrollo', el deseo de dedicarse a otra ocupación, que permita actualizar mejor las propias capacidades.

1.3. El subtipo 'desgastado', manifiesta: abandono, falta de control y falta de reconocimiento. El 'abandono', es la desatención como respuesta ante cualquier dificultad; la 'falta de control', la impotencia de tratar con situaciones fuera de control; la 'falta de reconocimiento', la creencia de que no se valoran los esfuerzos.

1.4. El criterio de clasificación: grado de 'dedicación' hacia las tareas del trabajo, permite articular e integrar dicha estructura conceptual, presentándola como una tipología del síndrome de burnout, organizada y sistematizada.

2. Definiciones para trabajadores [Definitions for workers]

2.1. El BCSQ-36, con las escalas de los subtipos: frenético, sin-desafíos y desgastado; y las sub-escalas: implicación, ambición y sobrecarga; indiferencia, aburrimiento y falta de desarrollo; abandono, falta de control y falta de reconocimiento, permitió identificar los subtipos de burnout con adecuadas consistencia interna, validez factorial y validez convergente respecto al MBI-GS.

2.2. El BCSQ-12, mediante las dimensiones: sobrecarga, falta de desarrollo y abandono, pertenecientes a los subtipos: frenético, sin-desafíos y desgastado, permitió identificar brevemente los perfiles de burnout, con adecuadas consistencia interna, validez factorial, validez convergente respecto al MBI-GS, capacidad discriminativa y validez divergente entre los subtipos.

3. Definición para estudiantes [Definition for students]

3.1. El BCSQ-12-SS, mediante las dimensiones: sobrecarga, falta de desarrollo y abandono, permitió identificar brevemente los subtipos de burnout entre estudiantes, con adecuadas consistencia interna, validez factorial, validez convergente respecto al MBI-SS y validez divergente entre los subtipos.

4. Poder explicativo [Explanatory power]

4.1. El poder explicativo del BCSQ-36 y del BCSQ-12, respecto al MBI-GS, fue elevado, mayor en el primero que en el segundo. Parece recomendable utilizar el BCSQ-36, en los servicios especializados de salud mental, y el BCSQ-12, como herramienta de cribado en consultas de atención no especializada.

3.2. La versión BCSQ-12-SS para estudiantes, presentó una gran capacidad explicativa respecto al estándar MBI-SS.

5. Factores de riesgo [Risk factors]

5.1. El sexo, no determinó diferencias entre los subtipos, pero sí lo hizo la temporalidad del contrato. Los empleados temporales, mostraron puntuaciones más elevadas en el perfil frenético, y los indefinidos, en los perfiles sin-desafíos y desgastado. El tipo de ocupación, también permitió establecer diferencias. El PDI, mostró mayores niveles de sobrecarga, el PAS, mayores niveles de falta de desarrollo, y los becarios, menores niveles de abandono.

5.2. La probabilidad de presentar el subtipo frenético, se intensificó en relación directa al número de horas semanales de trabajo. La probabilidad de presentar el subtipo sin-desafíos, fue mayor en ocupaciones de tipo burocrático y rutinario, como las del personal de administración y servicios. La probabilidad de presentar el subtipo desgastado, aumentó en relación directa al tiempo de servicio trabajado en la estructura organizativa universitaria.

5.3. Entre los estudiantes, la probabilidad de presentar altas puntuaciones en sobrecarga, se incrementó en relación directa al número de horas dedicadas al estudio. La presencia de altas puntuaciones en falta de desarrollo, estuvo determinada por el campus universitario de procedencia. La probabilidad de presentar altas puntuaciones en abandono, se agravó en relación directa al número de asignaturas suspendidas en el semestre anterior.

Appendices

“He had the feeling something was shaking his brain, and that an uncontrollable force made it spin at a dizzying speed, faster and faster, in large circles, then in increasingly smaller ones around the same centre, before finally throwing him with excessive, brutal and savage force against the centre of all the circles, which was hard as stone... He turned one hundred and eighty degrees and, with his arms outstretched, fell face-down onto the the pavement”.

(Thomas Mann, *Los Buddenbrook*, 1901)

Annex 1

Burnout Clinical Subtype Questionnaire (BCSQ-36)*

1 Totally disagree	2 Strongly disagree	3 Disagree	4 Unsure	5 Agree	6 Strongly agree	7 Totally agree
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1.	I need to achieve great success in my work (A)	
2.	I think the dedication I invest in my work is more than what I should for my health (O)	
3.	I invest the necessary effort in my work until I overcome difficulties (Im)	
4.	I am ambitious to obtain important results in my work (A)	
5.	I neglect my personal life when I pursue important achievements in my work (O)	
6.	I get very involved in solving work-related problems (Im)	
7.	I feel the need to achieve important goals in my work (A)	
8.	I risk my health when I pursue good results in my work (O)	
9.	If I don't achieve the expected result in my work, I try harder to achieve it (Im)	
10.	I have a strong need for important achievements in my work (A)	
11.	I overlook my own needs to fulfil work demands (O)	
12.	I react to difficulties in my work with greater participation (Im)	
13.	I feel indifferent about my work and have little desire to succeed (Id)	
14.	I would like to be doing another job that is more challenging for my abilities (Ld)	
15.	I feel my work is mechanical and routine (B)	
16.	I have little interest for the tasks involved in my job (Id)	
17.	I feel that my work is an obstacle to the development of my abilities (Ld)	
18.	My work offers me little variety in its activities (B)	
19.	I'm not enthusiastic about my work (Id)	
20.	I would like to be doing another job where I can better develop my talents (Ld)	
21.	I am unhappy with my work because the tasks involved are monotonous (B)	
22.	I behave in a unconcerned and reluctant way at work (Id)	
23.	My work doesn't offer me opportunities to develop my abilities (Ld)	
24.	I feel bored at work (B)	
25.	The people who need my services don't show appreciation or gratitude for my efforts (La)	

26.	When things at work don't turn out as well as they should, I stop trying (N)	
27.	I feel helpless in many situations in my work (Lc)	
28.	Professional recognition doesn't depend on efforts made at work (La)	
29.	I give up in response to difficulties in my work (N)	
30.	I feel defenseless in some situations in my work (Lc)	
31.	The organisation I work for doesn't take notice of effort and dedication (La)	
32.	I give up in the face of any difficulties in my work tasks (N)	
33.	I feel the results of my work are beyond my control (Lc)	
34.	I think my dedication to my work is not acknowledged (La)	
35.	When the effort I invest in work is not enough, I give in (N)	
36.	I deal with many situations in my work that are beyond my control (Lc)	

Implication (F)	=	(Im)/4	=
Ambition (F)	=	(A)/4	=
Overload (F)	=	(O)/4	=
Frenetic subtype	=	(F)/3	=
Indifference (U)	=	(Id)/4	=
Boredom (U)	=	(B)/4	=
Lack of development (U)	=	(Ld)/4	=
Underchallenged subtype	=	(U)/3	=
Neglect (W)	=	(N)/4	=
Lack of control (W)	=	(Lc)/4	=
Lack of acknowledgment (W)	=	(La)/4	=
Worn-out subtype	=	(W)/3	=

* Montero-Marín J and García-Campayo J: A newer and broader definition of burnout: Validation of the 'Burnout Clinical Subtype Questionnaire (BCSQ-36)'. *BMC Public Health* 2010, 10:302.

Annex 2

Cuestionario de Subtipos Clínicos de Burnout (BCSQ-36)*

1 Totalmente de acuerdo	2 Muy en desacuerdo	3 En desacuerdo	4 Indeciso	5 De acuerdo	6 Muy de acuerdo	7 Totalmente de acuerdo
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1.	Tengo la necesidad de obtener grandes triunfos en el trabajo (A)	
2.	Creo que invierto más de lo saludable en mi dedicación al trabajo (O)	
3.	En el trabajo, invierto todo el esfuerzo necesario hasta superar las dificultades (Im)	
4.	Ambiciono la obtención de grandes resultados en el trabajo (A)	
5.	Descuido mi vida personal al perseguir grandes objetivos en el trabajo (O)	
6.	Me involucro con gran esfuerzo en la solución de los problemas del trabajo (Im)	
7.	Siento la necesidad de abordar grandes metas en el trabajo (A)	
8.	Arriesgo mi salud en la persecución de buenos resultados en el trabajo (O)	
9.	Si en el trabajo no logro el resultado esperado, me empeño más para alcanzarlo (Im)	
10.	Tengo una fuerte necesidad de grandes logros en el trabajo (A)	
11.	Ignoro mis propias necesidades por cumplir con las demandas del trabajo (O)	
12.	Ante las dificultades en el trabajo reacciono con mayor participación (Im)	
13.	Me siento indiferente y con poca inclinación hacia mi trabajo (Id)	
14.	Me gustaría dedicarme a otro trabajo que planteara mayores desafíos a mi capacidad (Ld)	
15.	Siento que mi trabajo es mecánico y rutinario (B)	
16.	Tengo poco interés por las tareas de mi puesto de trabajo (Id)	
17.	Siento que mi actividad laboral es un freno para el desarrollo de mis capacidades (Ld)	
18.	Mi trabajo me ofrece poca variedad de actividades (B)	
19.	No tengo ilusión por mi actividad laboral (Id)	
20.	Me gustaría desempeñar otro trabajo en el que pudiera desarrollar mejor mi talento (Ld)	
21.	Estoy descontento en mi trabajo por la monotonía de las tareas (B)	
22.	En el trabajo me comporto con despreocupación y desgana (Id)	
23.	Mi trabajo no me ofrece oportunidades para el desarrollo de mis aptitudes (Ld)	
24.	Me siento aburrido en el trabajo (B)	
25.	Quienes demandan mi servicio no muestran aprecio ni gratitud por mis esfuerzos (La)	

26.	Cuando las cosas del trabajo no salen del todo bien dejo de esforzarme (N)	
27.	Me siento impotente en muchas situaciones de mi trabajo (Lc)	
28.	El reconocimiento profesional no depende de lo que uno se esfuerce en el trabajo (La)	
29.	Me rindo como respuesta a las dificultades en el trabajo (N)	
30.	Me siento indefenso ante algunas situaciones de mi trabajo (Lc)	
31.	En la organización donde trabajo no se tienen en cuenta el esfuerzo y la dedicación (La)	
32.	Abandono ante cualquier dificultad en las tareas de mi trabajo (N)	
33.	Siento que se escapan de mi control los resultados de mi trabajo (Lc)	
34.	Pienso que mi dedicación en el trabajo no se ve reconocida (La)	
35.	Cuando el esfuerzo invertido en el trabajo no es suficiente, me doy por vencido (N)	
36.	En mi trabajo trato con muchas situaciones que están fuera de mi control (Lc)	

Implicación (F)	=	(Im)/4	=
Ambición (F)	=	(A)/4	=
Sobrecarga (F)	=	(O)/4	=
Subtipo frenético	=	(F)/3	=
Indiferencia (U)	=	(Id)/4	=
Aburrimiento (U)	=	(B)/4	=
Falta de Desarrollo (U)	=	(Ld)/4	=
Subtipo sin-desafíos	=	(U)/3	=
Abandono (W)	=	(N)/4	=
Falta de Control (W)	=	(Lc)/4	=
Falta de Reconocimiento (W)	=	(La)/4	=
Subtipo desgastado	=	(W)/3	=

* Montero-Marín J and García-Campayo J: A newer and broader definition of burnout: Validation of the 'Burnout Clinical Subtype Questionnaire (BCSQ-36)'. *BMC Public Health* 2010, 10:302.

Annex 3

Burnout Clinical Subtype Questionnaire (BCSQ-12)*

1 Totally disagree	2 Strongly disagree	3 Disagree	4 Unsure	5 Agree	6 Strongly agree	7 Totally agree
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1.	I think the dedication I invest in my work is more than what I should for my health (O)	
2.	I would like to be doing another job that is more challenging for my abilities (Ld)	
3.	When things at work don't turn out as well as they should, I stop trying (N)	
4.	I neglect my personal life when I pursue important achievements in my work (O)	
5.	I feel that my work is an obstacle to the development of my abilities (Ld)	
6.	I give up in response to difficulties in my work (N)	
7.	I risk my health when I pursue good results in my work (O)	
8.	I would like to be doing another job where I can better develop my talents (Ld)	
9.	I give up in the face of any difficulties in my work tasks (N)	
10.	I overlook my own needs to fulfil work demands (O)	
11.	My work doesn't offer me opportunities to develop my abilities (Ld)	
12.	When the effort I invest in work is not enough, I give in (N)	

Overload (O)	=	(O)/4	=	
Lack of Development (Ld)	=	(Ld)/4	=	
Neglect (N)	=	(N)/4	=	

* Montero-Marín J, Skapinakis P, Araya R, Gili M, García-Campayo J: Towards a brief definition of burnout syndrome by subtypes: development of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). *Health Qual Life Outcomes* 2011, 9:74.

Annex 4

Cuestionario de Subtipos Clínicos de Burnout (BCSQ-12)*

1 Totalmente de acuerdo	2 Muy en desacuerdo	3 En desacuerdo	4 Indeciso	5 De acuerdo	6 Muy de acuerdo	7 Totalmente de acuerdo
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1.	Creo que invierto más de lo saludable en mi dedicación al trabajo (O)	
2.	Me gustaría dedicarme a otro trabajo que planteara mayores desafíos a mi capacidad (Ld)	
3.	Cuando las cosas del trabajo no salen del todo bien dejo de esforzarme (N)	
4.	Descuido mi vida personal al perseguir grandes objetivos en el trabajo (O)	
5.	Siento que mi actividad laboral es un freno para el desarrollo de mis capacidades (Ld)	
6.	Me rindo como respuesta a las dificultades en el trabajo (N)	
7.	Arriesgo mi salud en la persecución de buenos resultados en el trabajo (O)	
8.	Me gustaría desempeñar otro trabajo en el que pudiera desarrollar mejor mi talento (Ld)	
9.	Abandono ante cualquier dificultad en las tareas de mi trabajo (N)	
10.	Ignoro mis propias necesidades por cumplir con las demandas del trabajo (O)	
11.	Mi trabajo no me ofrece oportunidades para el desarrollo de mis aptitudes (Ld)	
12.	Cuando el esfuerzo invertido en el trabajo no es suficiente, me doy por vencido (N)	

Sobrecarga (O)	=	(O)/4	=	
Falta de Desarrollo (Ld)	=	(Ld)/4	=	
Abandono (N)	=	(N)/4	=	

* Montero-Marín J, Skapinakis P, Araya R, Gili M, García-Campayo J: Towards a brief definition of burnout syndrome by subtypes: development of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). *Health Qual Life Outcomes* 2011, 9:74.

Annex 5

Burnout Clinical Subtype Questionnaire Student Survey (BCSQ-12-SS)*

1 Totally disagree	2 Strongly disagree	3 Disagree	4 Unsure	5 Agree	6 Strongly agree	7 Totally agree
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1.	I think I invest more than is healthy in my commitment to my studies (O)	
2.	I would like to study something else that would be more challenging to my abilities (Ld)	
3.	When the results of my studies are not good at all, I stop making an effort (N)	
4.	I neglect my personal life due to pursuing great objectives in studying (O)	
5.	I feel that my current studies are hampering the development of my abilities (Ld)	
6.	I give up in response to an obstacle in my studies (N)	
7.	I am endangering my health in pursuing good results in my studies (O)	
8.	I would like to study something else in which I could better develop my talent (Ld)	
9.	I give up when faced with any difficulty in my tasks as a student (N)	
10.	I ignore my own needs to satisfy the requirements of my studies (O)	
11.	My studies do not provide me with opportunities to develop my abilities (Ld)	
12.	When the effort I invest in my studies is not enough, I give in (N)	

Overload (O)	=	(O)/4	=	
Lack of Development (Ld)	=	(Ld)/4	=	
Neglect (N)	=	(N)/4	=	

* Montero-Marin J, Monticelli F, Casas M: Burnout syndrome among dental students: A short version of the 'Burnout Clinical Subtype Questionnaire' adapted for students (BCSQ-12-SS). *BMC Med Educ* 2011, 11:103

Annex 6

Cuestionario de Subtipos Clínicos de Burnout Versión Estudiantes (BCSQ-12-SS)*

1 Totalmente de acuerdo	2 Muy en desacuerdo	3 En desacuerdo	4 Indeciso	5 De acuerdo	6 Muy de acuerdo	7 Totalmente de acuerdo
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1.	Creo que invierto más de lo saludable en mi dedicación al estudio (O)	
2.	Me gustaría estudiar alguna otra cosa que planteara mayores desafíos a mi capacidad (Ld)	
3.	Cuando los resultados de mis estudios no salen del todo bien dejo de esforzarme (N)	
4.	Descuido mi vida personal al perseguir grandes objetivos en el estudio (O)	
5.	Siento que mis actuales estudios son un freno para el desarrollo de mis capacidades (Ld)	
6.	Me rindo como respuesta a las dificultades en el estudio (N)	
7.	Arriesgo mi salud en la persecución de buenos resultados en el estudio (O)	
8.	Me gustaría estudiar otra cosa en la que pudiera desarrollar mejor mi talento (Ld)	
9.	Abandono ante cualquier dificultad en las tareas de mis estudios (N)	
10.	Ignoro mis propias necesidades por cumplir con las demandas del estudio (O)	
11.	Ignoro mis propias necesidades por cumplir con las demandas del estudio (Ld)	
12.	Cuando el esfuerzo invertido en el estudio no es suficiente, me doy por vencido (N)	

Sobrecarga (O)	=	(O)/4	=
Falta de Desarrollo (Ld)	=	(Ld)/4	=
Abandono (N)	=	(N)/4	=

* Montero-Marin J, Monticelli F, Casas M: Burnout syndrome among dental students: A short version of the 'Burnout Clinical Subtype Questionnaire' adapted for students (BCSQ-12-SS). *BMC Med Educ* 2011, 11:103

Bibliometric characteristics of the original publications

Journal of Occupational Medicine and Toxicology 2009

IF: 1.11 (unofficial)

Bases: CABI, CAS, Citebase, Embase, EmBiology, Google Scholar, Index Copernicus, OAIster, PubMed, PubMed Central, SCImago, Scirus, Scopus, Socolar, Zetoc.

Topic areas: Environmental Exposure, Occupational Diseases.

Field of occupational medicine and toxicology: The field is devoted to the diagnosis, prevention, management and scientific analysis of occupational diseases, injuries and disability; it also covers the promotion of health of workers, their families, and communities.

Quartile: Not currently available.

BMC Public Health 2010

IF: 2.36

Bases: CABI, CAS, Citebase, Current contents, Embase, EmCare, Food Science and Technology Abstracts, Google Scholar, Index Copernicus, MEDLINE, Medscape, OAIster, PubMed, PubMed Central, Science Citation Index Expanded, SCImago, Scirus, Scopus, Socolar, Zetoc.

Topic areas: public, environmental and occupational health

Quartile: Q₂

Abbreviated Journal Title	ISSN	JCR Data						Eigenfactor® Metrics	
		Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor® Score	Article Influence® Score
BMC PUBLIC HEALTH	1471-2458	5,255	2.364	2.692	0.190	789	3.3	0.02919	0.867

BMC Psychiatry 2011

IF: 2.55

Bases: CAS, Citebase, Current contents, Embase, Google Scholar, Index Copernicus, MEDLINE, Medscape, OAIster, PsycINFO, PubMed, PubMed Central, Science Citation Index Expanded, SCImago, Scirus, Scopus, SOCOLAR, Zetoc.

Topic areas: psychiatry

Quartile: Q₂

Abbreviated Journal Title	ISSN	JCR Data						Eigenfactor® Metrics	
		Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor® Score	Article Influence® Score
BMC PSYCHIATRY	1471-244X	1,629	2.552	2.892	0.228	197	3.8	0.00748	0.958

Health and Quality of Life Outcomes 2011

IF: 2.11

Bases: Cinahl, Citebase, Current contents, Embase, EmCare, Google Scholar, Index Copernicus, MEDLINE, Medscape, OAIster, PubMed, PubMed Central, Science Citation Index, Science Citation Index Expanded, SCImago, Scirus, Scopus, SOCOLAR, Zetoc

Topic areas: health care sciences and services

Quartile: Q₂

Abbreviated Journal Title	ISSN	JCR Data						Eigenfactor® Metrics	
		Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor® Score	Article Influence® Score
HEALTH QUAL LIFE OUT	1477-7525	2,719	2.112	3.192	0.114	114	5.3	0.00962	1.007

BMC Public Health 2012

IF: 2.00

Bases: CABI, CAS, Citebase, Current contents, Embase, EmCare, Food Science and Technology Abstracts, Google Scholar, Index Copernicus, MEDLINE, Medscape, OAIster, PubMed, PubMed Central, Science Citation Index Expanded, SCImago, Scirus, Scopus, SOCOLAR, Zetoc.

Topic areas: public, environmental and occupational health

Quartile: Q₂

Abbreviated Journal Title	ISSN	JCR Data						Eigenfactor® Metrics	
		Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor® Score	Article Influence® Score
BMC PUBLIC HEALTH	1471-2458	7,096	1.997	2.518	0.271	1009	3.5	0.03620	0.822

BMC Medical Education 2011

IF: 1.15

Bases: CABI, CAS, Cinahl, Citebase, Current contents, Embase, EmCare, Google Scholar, Index Copernicus, MEDLINE, OAIster, PubMed, PubMed Central, Science Citation Index Expanded, SCImago, Scirus, Scopus, Social Sciences Citation Index, SOCOLAR, Zetoc.

Topic areas: education, scientific disciplines.

Quartile: Q₂

Abbreviated Journal Title	ISSN	JCR Data						Eigenfactor® Metrics	
		Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor® Score	Article Influence® Score
BMC MED EDUC	1472-6920	668	1.152	-	0.019	105	4.5	0.00315	-

Authors' Contributions

1. Montero-Marin J, Garcia-Campayo J, Mera D, López Y: A new definition of burnout syndrome based on Farber's proposal. *Journal of Occupational Medicine and Toxicology* 2009, 4:31.

JMM and JGC conceived the research study. JMM, DM and YL carried out the content analysis. All authors interpreted the results, drafted the manuscript and read and approved the final manuscript.

2. Montero-Marin J, Garcia-Campayo J: A newer and broader definition of burnout: Validation of the 'Burnout Clinical Subtype Questionnaire (BCSQ-36)'. *BMC Public Health* 2010, 10:302.

JMM and JGC were the principal researchers and developed the original idea for the study and the study design. JMM developed the statistical methods. Both authors have read and corrected draft versions and approved the final version.

3. Montero-Marín J, García-Campayo J, Fajó-Pascual M, Carrasco J, Gascón S, Gili M, Mayoral-Cleries F: Sociodemographic and occupational risk factors associated with the development of different burnout types: the cross-sectional university of Zaragoza study. *BMC Psychiatry* 2011, 11:49.

JMM, JGC, MG and FM conceived the project. JMM and JMC collected the data. JMM, MFP and SG conducted the statistical analysis and all authors interpreted the results, drafted the manuscript and read and approved the final manuscript.

4. Montero-Marín J, Skapinakis P, Araya R, Gili M, García-Campayo J: Towards a brief definition of burnout syndrome by subtypes: development of the 'Burnout Clinical Subtype Questionnaire' (BCSQ-12). *Health Qual Life Outcomes* 2011, 9:74.

JMM, JGC, PS, RA and MG conceived the study design. JMM and JGC collected the data, JMM, PS, JGC and RA conducted the statistical analysis, and all authors contributed to the interpretation of the results, the drafting of the manuscript, and the approval of the final manuscript.

5. Montero-Marín J, Araya R, Oliván-Blazquez B, Skapinakis P, Martínez-Vizcaino V, García-Campayo J: Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types. *BMC Public Health* 2012, 12:922.

JMM, RA and JGC designed the project. JMM and BOB collected the data. JMM, PS and VMV performed the statistical analysis, and all authors interpreted the results, drafted the manuscript and read and approved the final manuscript.

6. Montero-Marin J, Monticelli F, Casas M, Román A, Tomás I, Gili M, García-Campayo J: Burnout syndrome among dental students: A short version of the 'Burnout Clinical Subtype Questionnaire' adapted for students (BCSQ-12-SS). *BMC Med Educ* 2011, 11:103.

JMM, FM, MG and JGC conceived the project. AR, MC, and IT collected the data. JMM and MG conducted the statistical analysis. All authors interpreted the results, drafted the manuscript and read and approved the final manuscript.

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