Universidad Francisco de Vitoria UFV Madrid

TESIS DOCTORAL

La Humanización de las Unidades de Cuidados Intensivos: de la utopía a la realidad a través de la investigación colaborativa multicéntrica

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Escuela Internacional de Doctorado

Madrid, 2022

Agradecimientos

A cada una de las personas que se cruzaron en mi trayectoria profesional, ya sean pacientes, familiares y compañeros, y de los que aprendí a ser la persona y el médico que soy;

A todo el equipo de Proyecto HU-CI, que me acompaña a diario en esta bendita locura y me ayuda a aterrizar mis sueños;

A mis directoras Diana y Mari Cruz, por creer que esta tesis era posible y confiar en mi para desarrollarla;

A la Universidad Francisco de Vitoria, por apostar por un modelo de enseñanza humanista que forme además de buenos profesionales, profesionales buenos;

A mis padres y hermanos, que me enseñaron la importancia de ser buena persona por encima de cualquier cosa;

A mis hijas, que me recuerdan la necesidad de dejar el mundo un poco mejor de lo que lo encontramos;

A Ruth, que comparte con ilusión mi camino y es el motor de la alegría.

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Resumen

El desarrollo científico-técnico de las Unidades de Cuidados Intensivos (UCI) ha conseguido cifras de supervivencia espectaculares[1], pero por otro lado han pasado a un segundo plano los aspectos más humanos de la profesión. En el momento actual, pacientes y familias no se sienten protagonistas durante su propio proceso de enfermedad y acompañamiento[2], y las tasas de desgaste profesional en UCI superan el 70% según las series[3]. Todo ello se ha visto profundamente agravado durante la crisis humanitaria generada por la pandemia por SARS-CoV2[4], que ha puesto de manifiesto las carencias de los diferentes sistemas sanitarios a nivel mundial y que ha supuesto en muchas ocasiones una pérdida de los derechos fundamentales de las personas enfermas y sus familiares, así como las deficiencias en el cuidado de los profesionales. Paradójicamente, los hospitales y los centros de prestación servicios de salud, ya sean del ámbito público o privado, son percibidos por todos como lugares *poco hospitalarios*.

Desde febrero de 2014 el proyecto internacional de investigación para la humanización de las unidades de cuidados intensivos (Proyecto HU-CI)[5] ha supuesto y propuesto un cambio de paradigma en la atención sanitaria hacia un modelo centrado en las personas: pacientes, familias y profesionales[6-7]. Este grupo, iniciado tras una profunda crisis personal, preguntó, escuchó y reflexionó los potenciales puntos débiles de la atención en las UCI. A través de la investigación colaborativa multicéntrica, se pretende transformar la realidad aunando evidencia científica y humanidad; razón y emoción; para impregnar la asistencia sanitaria de los valores que marcan la diferencia y que nunca se debieron de perder. La presente tesis doctoral es el fruto de algunas de esas investigaciones.

Summary

The scientific and technical development of Intensive Care Units (ICU) has achieved spectacular survival rates[1], but on the other hand, the more human aspects of the profession have taken a back seat. At the present time, patients and families do not feel that they are the protagonists during their own process of illness and accompaniment[2], and the rates of professional burnout in the ICU exceed 70% according to the series[3]. All this has been deeply aggravated during the humanitarian crisis caused by the SARS-CoV2 pandemia[4], which has highlighted the shortcomings of the different healthcare systems worldwide and has often led to a loss of the fundamental rights of sick people and their families, as well as deficiencies in the care provided by professionals. Paradoxically, all as not very hospitable, whether public or private, perceive hospitals and healthcare facilities.

Since February 2014, the international research group for the Humanisation of Intensive Care Units (HU-CI Project)[5] has proposed a paradigm shift in healthcare towards a model centered on people: patients, families, and professionals[6-7]. This group, initiated after a deep personal crisis, asked, listened, and reflected on the potential weaknesses of ICU care. Through multicenter collaborative research, the aim is to transform reality by combining scientific evidence and humanity; reason and emotion; to impregnate healthcare with the values that make the difference and that should never have been lost. This doctoral thesis is the result of some of these researches.

Introducción general

Estamos asistiendo a un cambio de paradigma mundial, donde las personas resurgen como centro del sistema[1]. Algo tan simple, obvio e intrínseco a la especie humana como es la vida en relación entre las personas, que durante años ha pasado a un segundo plano. Hablamos de humanizar[2] esa relación entre personas que se encuentran en situaciones vitales diferentes y que confluyen en el mismo escenario: el sistema sanitario.

Por un lado, están las personas enfermas, en situación de duelo por la pérdida de salud y, por tanto, de vulnerabilidad e incertidumbre. Contactan con el sistema sanitario por necesidad y no vienen de vacío: traen una historia de vida. Los acompañan sus seres queridos, su fuente de apoyo y esperanza y quienes mejor conocen al paciente y pueden dar ese amor y acompañamiento tan necesarios, pero por otro lado tan digamos…regulados. Y también están los profesionales, formados y preparados durante años a nivel técnico y entrenados para curar y salvar vidas; desencantados y desmotivados en muchas ocasiones por mil motivos que deshumanizan o bien, que no les permite trabajar como hubieran deseado.

Cuidar a todas las partes que conviven en el sistema sanitario a diario (pacientes, familiares y profesionales) es una necesidad en el camino hacia la construcción de una sanidad excelente[3-4], y nos obliga a todos a comprometernos y gestionar los problemas particulares de cada protagonista, dar respuesta a sus necesidades y comprender que el equilibrio depende del bienestar de todos los implicados. No podremos curar a todas las personas, pero seguro que podemos mejorar los cuidados que realizamos.

¿Qué es humanizar? El modelo de cuidados centrado en el paciente y la familia

Si bien en el siglo pasado el Sistema Sanitario estaba centrado en el médico, actualmente asistimos a la auténtica explosión del modelo de cuidados centrado en el paciente[5] (*"patient centered care").* Del paternalismo clásico a la autonomía, y caminando hacia un modelo donde las personas cada vez están más informadas y reclaman su participación activa en todos los ámbitos. Miles de publicaciones al respecto en las fuentes bibliográficas biomédicas tratan de poner en valor la importancia de este cambio filosófico, que sería el deseado si enfocamos la atención sanitaria en la dignidad de las personas que sufren, o de sus familias[6] ("*family centered care*").

Por otro lado, el cambio propuesto es tan necesario como disruptivo, y no por el hecho de que no sea lógico, sino porque confronta la manera de funcionar de todo el sistema de salud. Muchos años trabajando de una manera totalmente piramidal hace de este nuevo enfoque un reto donde construir entre todos un modelo de abordaje transversal[7].

El desarrollo profesional y técnico de las UCI es excepcional[8]. Prueba de ello son las altas cifras de supervivencia que avalan sus excelentes resultados[9]. Pero, por otro lado, también sabemos que el desarrollo de esta especialidad a nivel tecnológico no se ha visto acompañado de igual manera en sus aspectos humanos[10]. Y esto no solo afecta a los pacientes; en muchas ocasiones, las características organizativas y arquitectónicas de las UCI hacen que se conviertan en ambientes hostiles para todos: pacientes, familias e incluso para los propios profesionales[11]. Según la Real Academia Española[12], humanizar como verbo transitivo es la acción de "hacer humano, familiar y afable a alguien o algo". Es decir, podríamos humanizar todo aquello que nos propongamos, y si lo centramos en la atención sanitaria, independientemente de ser paciente, familiar o profesional podríamos plantearnos las siguientes cuestiones:

- ¿Puedo humanizar mi relación con los demás?
- ¿Cómo puedo humanizar mi día a día para ser feliz?
- ¿Puedo humanizar los espacios?
- ¿Puedo humanizar la gestión?
- ¿Puedo humanizar mi hospital o centro de salud?

Y esta lista de preguntas sería tan larga, personal y diferente como cada uno queramos que sea.

Según uno de los referentes en humanización en España, José Carlos Bermejo (Director del Centro de Humanización de la Salud de Madrid), humanizar significa *"hacer referencia al hombre en todo lo que se realiza para promover y proteger la salud, curar las enfermedades, garantizar un ambiente que favorezca una vida sana y armoniosa a nivel físico, emotivo, social y espiritual. Hablar de humanización reclama la dignidad intrínseca de todo ser humano y los derechos que de ella derivan. Y esto lo convierte en una necesidad de vital importancia y trascendencia"*[2].

Por supuesto, para muchas personas la humanización es algo utópico, algo que debería ser pero que se antoja irrealizable dados los numerosos condicionantes socioculturales, laborales, propios del mundo en el que se pretende situar la acción de humanizar. Pero si entendemos la utopía como lo hace Bloch, se convierte en una empresa apasionante: *"La utopía no está en su realización que es indispensable, sino en que nos sirve de estímulo para tender siempre hacia una meta que todavía no hemos alcanzado"* [13]. Y es que *humanizar* tiene que ver, efectivamente, con luchar por *"lo que todavía no"* hemos alcanzado: cómo deberíamos vivir para realizarnos plenamente como personas, y sentirnos así en cada situación y en cada lugar.

Humanizar la atención sanitaria significa apostar por una sanidad más amable y centrada en las personas, independientemente de su rol; humanizar también significa personalizar la asistencia escuchando lo que necesitan pacientes y familiares, no lo que nosotros pensamos que necesitan, sino atendiendo a sus necesidades, aunque no coincidan con las nuestras, y convertir esto en un proceso clínico donde la actitud sea fundamental. Humanizar es también entender y aceptar que los profesionales somos falibles y vulnerables, y que también necesitamos ser escuchados puesto que somos el capital básico para humanizar la Sanidad. Todos los sistemas sanitarios estarán humanizados cuando esté al servicio de todas las personas: personas enfermas, familiares y profesionales.

El cuidado requiere competencia profesional y formación, pero también individualidad, emoción, solidaridad, sensibilidad y ética. Precisa de grandes dotes de comunicación y habilidades de relación: empatía, escucha activa, respeto y compasión. Pero históricamente, los profesionales sanitarios tenemos defectos curriculares en la formación en *"herramientas humanas"*, las mal llamadas *"habilidades blandas".* Lo que se ha definido como el *Modelo Afectivo-Efectivo*[14] inspirado en el pensamiento y valores de Albert Jovell: *"Es la forma de cuidar y curar al paciente como persona, con base en la evidencia científica, incorporando la dimensión de la dignidad y la humanidad del paciente, estableciendo una atención basada en la confianza y empatía, y contribuyendo a su bienestar y a los mejores resultados posibles en salud".*

Humanizar una realidad significa hacerla digna de las personas, es decir, coherente con los principios bioéticos y a nuestro servicio. Una realidad personalizada. Ya en 1984, el Instituto Nacional de la Salud de España (INSALUD) puso en marcha un Plan de Humanización de la Asistencia Sanitaria[15]. En su justificación establecía que la enfermedad genera una situación de indefensión que hace sentirse a la persona desvalida, por lo que necesita un sistema sanitario *"lo más humano posible".* Expresaba, además, que: "*La propia tecnificación de la medicina y la masificación despersonalizada, añade suficientes componentes para que el paciente se sienta frecuentemente desvalido, frente a esa situación que no domina".* Es decir, a la vez que se reconocía el derecho a la salud y a la asistencia, este proceso iba de la mano de tecnificación y masificación, y, en definitiva, de deshumanización. El plan reconocía que la humanización tenía que ver con la propia concepción del sistema, con la gestión y el funcionamiento de las estructuras sanitarias, con la mentalidad de las personas involucradas en el sistema, con la competencia profesional y con otros elementos no fácilmente comunicables ni tangibles, como *"el dolor evitado, el sufrimiento prevenido, las capacidades recuperadas, y la alegría recobrada."*

Por tanto, no es tema sencillo el que nos ocupa, y desde luego, tiene su propia y extensa historia personal a pesar de que en el momento actual muchas veces la humanización de la asistencia sanitaria sea considerada por muchos como *"una moda"*[16]. La humanización es responsabilidad de pacientes, familias y del personal sanitario; los gestores y las autoridades sanitarias. Humanizar es cultura, política, sociedad, economía, ética y justicia. Además, no solo precisamos humanización las personas y nuestros comportamientos. Humanizar no solo es cuestión de actitud: también precisamos poner la H a las estructuras materiales y técnicas. Algo tendrá esta aventura de humanizar que genera a veces tanta controversia, quizás porque nos pone en contacto con nosotros mismos. Y es que, desde luego, no resulta fácil ni siquiera ponerse de acuerdo en qué es humanizar.

Pero no se puede negar que hablar de humanización es hablar de movimiento. Con respecto a otras disciplinas del conocimiento sanitario, humanizar no sólo es estudiar una técnica o un procedimiento y ponerlo en práctica. Es hacer una profunda reflexión. Humanizar consiste en tomar consciencia de uno mismo: ¿dónde estoy yo? ¿qué puedo hacer yo? Y emprender un viaje al interior de cada ser humano: es un importante compromiso personal para mejorar la realidad, nuestras relaciones y el entorno a partir de cada persona, y que todos esos compromisos personales generen un nuevo espacio global y común.

¿Por qué hablamos de humanizar las UCI?

Si hiciéramos un alto en el camino y simplemente nos parásemos a escuchar a las tres partes implicadas en las UCI, apuntando en una lista sus sugerencias para mejorar la atención desde cada punto de vista, probablemente tendríamos el quid de la cuestión. Y sería absolutamente reproducible en cualquier parte del mundo. Las UCI son lugares vividos y sentidos como hostiles, tanto por los pacientes, como por las familias, e incluso por los propios profesionales. Han sido incluso definidas como "*sucursales del infierno*"[17], donde el miedo, el aislamiento, el dolor, la soledad y a veces la muerte suelen confluir.

Por ello, se antoja clave una comunicación efectiva entre todas las partes:

- Sobre cómo mejorar la atención a los pacientes, centrándonos en su bienestar y satisfacción, en el cuidado físico y emocional y entendiendo a las personas desde su dimensión integral.
- Sobre cómo facilitar la participación e implicar a las familias en los cuidados, escuchando sus necesidades, así como permitiendo su presencia y poniendo en valor su importancia en la recuperación del paciente.
- Sobre cómo recuperar las vocaciones de excelentes profesionales, hastiados por el ejercicio de su trabajo con recortes económicos y materiales, que se sienten infra-cuidados y maltratados por el sistema.

Algo tan obvio y de tal sentido común, que obviamente la siguiente pregunta sería ¿y cómo no nos hemos dado cuenta antes? Y no tiene una respuesta sencilla…Pero quizás no sea importante, quizás la cuestión importante sería la siguiente:

"Y ahora que nos hemos dado cuenta: ¿a qué estamos esperando?"

¿Qué es la humanización de los cuidados intensivos?

Por todo ello, ya era hora de pararse a pensar y rediseñar la atención del paciente crítico; cuestionarnos nuestras propias estructuras mentales y las estructuras físicas de las UCI de todo el mundo para pasar de una atención ejemplar a una atención excelente y centrada en los seres humanos. En febrero de 2014 nació el proyecto de investigación internacional *Proyecto HU-CI: Humanizando los Cuidados Intensivos*[18], tras una reflexión personal que invita a todas las partes del sistema al cambio, para hacer las UCI esos lugares que queremos realmente que sean. Para bajar a tierra este cambio de paradigma, creemos que la clave es escuchar activamente a todos los protagonistas, de forma transversal, para que a través de su experiencia podamos llevar a cabo las mejoras pertinentes. Las UCI de todo el mundo han promovido iniciativas innovadoras, aunque sin conexión entre ellas: diseñar horarios de visita familiar más flexibles, planificar medidas para mejorar el bienestar de los pacientes y sus familias, investigar su grado de satisfacción, o realizar protocolos para asegurar una adecuada atención al final de la vida son algunas de las propuestas. Pero son medidas aisladas.

A través de la investigación colaborativa en red, el Proyecto HU-CI pretende evaluar diferentes áreas y llevar a cabo la implementación de las correspondientes acciones de mejora. Esas áreas de mejora[19] fueron detectadas a través de la escucha activa y la reflexión compartida sobre miles de opiniones de los protagonistas en la web de Proyecto HU-CI.

Imagen 1. Líneas de investigación de Proyecto HU-CI

Los proyectos de investigación han sido priorizados estratégicamente según la demanda de los grupos de interés, si bien las líneas de mejora son un referente ideal para diseñar los proyectos de investigación. Es importante escuchar y estudiar a todos estos colectivos para poder implantar las acciones de cambio correspondientes. No cabe duda de la importancia de la información y comunicación con las familias; del interés en conocer el impacto del distrés moral de los profesionales, así como diseñar estrategias y proyectos tangibles que puedan influir en los mismos.

La pandemia por SARS-CoV2

La crisis del COVID-19 ha cambiado nuestras vidas. Con respecto a los profesionales de salud, se ha relacionado con un aumento de los riesgos psicosociales del trabajo que plantean importantes consecuencias emocionales[20]. Concretamente en las UCI, la presencia de distrés moral se ha visto aumentada[21] y diversos estudios señalan factores determinantes en ello tales como el racionamiento y triaje ante la escasez de recursos como la falta de ventiladores, la creación exponencial de camas de UCI en otros espacios diferentes a los habituales, la falta de equipos de protección individual (EPI), la necesidad de priorizar a pacientes con COVID frente a otras patologías, el miedo y el no poder colaborar con el equipo por encontrarse afectado por la enfermedad, y la soledad y aislamiento de pacientes y familiares[21-24]. El distrés del trabajo asistencial en pandemia ha supuesto un impacto en la salud emocional de los profesionales, que han presentado síntomas de ansiedad, depresión, disociación peritraumática y burnout. En España, algunos estudios indican que el 45,7% de los profesionales sanitarios han presentado un alto riesgo de trastorno mental durante la primera fase de la pandemia, refiriendo también sintomatología relacionada con ansiedad generalizada, ataques de pánico, depresión, abuso de sustancias e ideación suicida[25,26]. Por todo ello, nos parecía imprescindible evaluar el distrés moral, los posibles problemas de salud emocional asociados (ansiedad y depresión) y estilos de afrontamiento de los profesionales de UCI durante la primera ola de la pandemia, y paralelamente, poner en marcha un proyecto tangible que les diera soporte y valorar su grado de satisfacción tras una intervención psicológica en crisis-emergencias.

El objetivo del plan de humanización de las UCI no era exponer una revisión de *"medidas humanizadoras"* aisladas ya iniciadas en otras partes del mundo (guías para familiares, apoyo espiritual, participación de la familia en las rondas del equipo interdisciplinar, programas de educación a la familia y al paciente, diarios de la UCI, área de descanso para las familias). El objetivo es compartir un proyecto en nuestro entorno que combina todas las iniciativas sugeridas. Se trata de un plan integral y estratégico de mejora de la calidad para la humanización de las UCI que afecta y compromete a pacientes, familias y profesionales (y también a los gestores) en la búsqueda de beneficios compartidos. Para ello, desarrollamos un método gratuito, exportable y compartible para conseguir una UCI humanizada en todo el mundo. Una vez elaborada la hoja de ruta a seguir, comenzamos a investigar aspectos concretos, y uno de los aspectos fundamentales tiene que ver con la comunicación.

El hecho de que una gran parte de los pacientes que son atendidos en UCI estén incapacitados para comunicarse obliga a considerar a sus familiares como los interlocutores principales en el proceso de información[27]. Existen multitud de estudios[28-31] que indican que los familiares del paciente crítico tienen como necesidades prioritarias tanto la información como la cercanía con el paciente y con el equipo, siendo esta necesidad de información especialmente relevante en los familiares de pacientes que han fallecido o están a punto de fallecer[32]. La información clara y en términos comprensibles ayuda a transitar desde una fase inicial de desconcierto hacia un mayor control sobre la situación[33], a comprender la situación del paciente y a promover la implicación en la toma de decisiones al contar con elementos que favorecen poder optar entre distintas opciones[34]. El proceso de información a los familiares en la UCI es mejorable, tanto en España[35,36] como a nivel internacional[34,37]. Algunos trabajos recientes ponen de manifiesto que las dificultades identificadas en la primera década del siglo XXI siguen sin estar resueltas, como por ejemplo la falta de trabajo en equipo, el papel de las enfermeras/os que no saben bien de qué pueden informar o la necesidad de alcanzar consensos respecto a los contenidos de la información[38,39]. Estas dificultades son muy relevantes e impactan directamente en la calidad del proceso de informar. En las UCI españolas, el médico/a es el/la profesional que informa de manera "oficial"[40,41]. Esta información se suele dar solo una vez al día[41] en un momento fijado para ello. Se ha visto que en un elevado porcentaje de casos esta información no se comprende[34] o se comprende mal[42]. Generalmente, se pone el énfasis en aspectos técnicos y en los temas que los profesionales consideran relevantes, que pueden coincidir o no con las preferencias o necesidades de los familiares. Por ello es muy probable que a los familiares les surjan dudas a posteriori y busquen resolverlas con otros recursos, como por ejemplo preguntando a la enfermera/o, que tampoco tiene muy claro sobre qué aspectos puede o debe informar. Para poder resolver estas dificultades mencionadas, es necesario que el equipo de salud tenga un cierto grado de consenso acerca de cuál debe ser el contenido de la información y de cómo deben gestionarlos los diferentes profesionales[43]. En este sentido, otros autores han descrito algunas preguntas planteadas frecuentemente por los familiares de los pacientes críticos[44]. Creímos necesario contribuir a esta línea de trabajo elaborando un catálogo de demandas informativas, priorizadas por los propios familiares, que respalde la práctica clínica. Por una parte, conocer estas demandas puede ayudar a los profesionales a estructurar el mensaje a trasmitir a los familiares para que sea lo más significativo y adecuado posible para ellos. Y por otra, conocer qué profesionales consideran los familiares que pueden responder a sus demandas informativas nos servirá para definir las competencias informativas de los distintos profesionales que intervienen en el proceso asistencial.

En las UCI ocurren a diario situaciones facilitadoras del distrés moral, como los dilemas éticos, el uso de tecnología y soporte vital, la limitación del esfuerzo terapéutico, la futilidad de los tratamientos, la calidad de los cuidados, los problemas de comunicación o la interacción con las familias. En 2016, diversas sociedades científicas de cuidados críticos apelaron a la acción, señalando al distrés moral como una de las áreas imprescindibles de estudio e intervención en las UCI junto al burnout, la fatiga por compasión y la percepción de cuidados inapropiados[45].

Como era de esperar, durante la crisis del COVID-19 aumentó el distrés moral en las UCI[46], lo que ha supuesto un impacto en la salud emocional de los profesionales[47]. El estudio de este impacto emocional y su prevalencia contrasta, sin embargo, con los escasos estudios sobre el afrontamiento del estrés relacionado con el mismo. A diferencia de los países asiáticos, países occidentales como España han tenido poca experiencia previa con pandemias de esta magnitud, y la situación a la que se enfrentaron era desconocida para los profesionales sanitarios.

Además, la investigación científica recomienda intervenciones psicológicas en crisis-emergencias durante la fase aguda con el objeto de facilitar el afrontamiento de la situación y prevenir secuelas emocionales. El primer plan de desescalada para los servicios de medicina intensiva tras la pandemia producida por la COVID-19[48] de la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMIYUC) y de la Sociedad Española de Enfermería Intensiva y Unidades Coronarias (SEEIUC) recomendaba la necesidad de soporte psicológico al personal sanitario y la población atendida. Entre los profesionales, una alta prevalencia de este impacto emocional se ha asociado a la escasez de personal y equipos, a la sobrecarga de trabajo, al riesgo de estar expuesto a procedimientos generadores de aerosoles, falta de acceso a equipos de protección individual (EPI), percepción de atención inadecuada debido al alto número de pacientes atendidos, comunicación limitada entre los pacientes y sus familiares, y a ser testigos del sufrimiento prolongado y la muerte de pacientes[49-51]. Además de síntomas emocionales, los profesionales manifiestan situaciones frecuentes de distrés moral, vulnerabilidad y fatiga por compasión derivados de las dificultades en la toma de decisiones, particularmente en situaciones de final de la vida, así como altos niveles de despersonalización y agotamiento emocional.

Siguiendo las recomendaciones de prestación de soporte, y dada la naturaleza repentina del brote, se hizo necesaria una intervención psicológica en crisis-emergencias para atender a los profesionales sanitarios en primera línea. Tradicionalmente, las actuaciones psicológicas de crisis-emergencias y desastres con intervinientes se llevan a cabo en la atención extrahospitalaria tras la sucesión de accidentes graves, desastres naturales, emergencias de salud pública o atentados terroristas, siendo escasa su aplicación en el ámbito hospitalario. En España, la dotación de psicólogos en el Sistema

Nacional de Salud es escasa (6 psicólogos/as por cada 100.000 habitantes)[52], por lo que, en una situación de crisis como la vivida, los recursos disponibles han sido insuficientes. Por este motivo, el Gobierno dictó una norma que permitió el acceso a recursos externos en el marco puntual de la situación de crisis por pandemia[53]. Con el objetivo de colaborar en esta situación, Proyecto HU-CI diseñó y coordinó un programa de intervención psicológica en crisis-emergencias dirigido a profesionales en primera línea de UCI en toda España para realizar una labor de soporte emocional, detectar precozmente la aparición de posibles secuelas psicológicas y promover la salud en intervinientes.

Por todo lo anteriormente descrito, esta tesis pretende, en primer lugar describir el diseño del Plan de Humanización[54] con la participación de todos los protagonistas; en segundo lugar exponer la realización de un estudio de demandas informativas de los familiares[55] para conocer sus necesidades; en tercer lugar estudiar el distrés moral, los posibles problemas de salud emocional asociados y los estilos de afrontamiento de los profesionales de UCI durante la primera ola de la pandemia por SARS-CoV2 en España[56], a la vez analizar la puesta en marcha de un proyecto de intervención psicológica en crisis-emergencias para explorar los principales sentimientos y estrategias de afrontamiento y dar soporte a los profesionales, pacientes y familiares[57].

Objetivos

Objetivo general:

Describir la creación, puesta en marcha y presentar los resultados iniciales del proyecto internacional de investigación para la humanización de los cuidados intensivos para cada uno de los tres grupos de interés (pacientes, familias y profesionales).

Objetivos específicos:

- Elaborar el Plan de Humanización de las Unidades de Cuidados Intensivos, incluyendo objetivos, actividades e indicadores de calidad.

- Conocer las principales demandas informativas de los familiares de pacientes de UCI y contrastar las diferencias de criterio entre familiares y profesionales.

- Evaluar el distrés moral, posibles problemas de salud emocional asociados (ansiedad y depresión) y estilos de afrontamiento de los profesionales de UCI durante la primera ola de la pandemia COVID-19 en España.

- Explorar los principales sentimientos y estrategias de afrontamiento en crisis de profesionales de UCI durante la primera fase de la pandemia COVID-19 y valorar su grado de satisfacción tras una intervención psicológica en crisis-emergencias.

Materiales, métodos y resultados

Primer estudio: A plan for improving the humanisation of intensive care units. *Intensive Care Medicine. 2017*

Estudio descriptivo sobre la elaboración del Plan de Humanización de las UCI.

En septiembre de 2015, la Consejería de Sanidad de la Comunidad de Madrid solicitó al Proyecto HU-CI la realización del Plan de Humanización de las Unidades de Cuidados Intensivos, dentro del Plan de Humanización del Sistema Sanitario de la Comunidad. Se creó un comité técnico y multidisciplinar, formado por profesionales sanitarios expertos en humanización en cuidados críticos, así como por pacientes y expertos independientes. El comité se constituyó con el objetivo de elaborar un proyecto dirigido a la "humanización de los cuidados intensivos" y con la finalidad de ofrecer una metodología para que las UCI puedan aspirar a un nivel de excelencia asistencial humanizado y centrado en las personas, convirtiendo estas unidades en lugares más agradables para pacientes, familiares y profesionales. El comité estableció ocho líneas estratégicas sobre los que trabajar. Cada línea fue asumida por un grupo de trabajo formado por miembros del comité con la ayuda de los expertos independientes que cada comisión consideró necesarios. Los documentos elaborados por las comisiones fueron debatidos y consensuados en reuniones de trabajo por el grupo técnico para elaborar una primera versión del documento. Esta versión fue posteriormente debatida con representantes de todos los estamentos de la UCI de Madrid, con el fin de crear una propuesta flexible de priorización e implantación de medidas, según las necesidades particulares de cada UCI en colaboración con la Consejería de Sanidad (el documento completo se puede descargar pinchando aquí: https://proyectohuci.com/wp-content/uploads/2016/10/PlanHUCI.pdf).

Segundo estudio: Principales demandas informativas de los familiares de pacientes ingresados en Unidades de Cuidados Intensivos. Medicina Intensiva. 2017

Estudio descriptivo transversal multicéntrico sobre las necesidades informativas de familiares de pacientes ingresados en la UCI.

Métodos

Diseño

Se utilizaron varias metodologías adaptadas a las distintas fases del estudio, combinando el análisis documental, con un análisis cualitativo de validación de contenido en una primera fase y finalizando con un estudio descriptivo transversal.

Ámbito

Estudio multicéntrico en el que han participado 41 UCI repartidas por toda España contando con 66 profesionales (médicos/as y enfermeras/os de cada una de ellas), que actuaron como coordinadores de la recogida de datos en sus unidades. El trabajo de campo se llevó a cabo en diferentes fases entre septiembre del 2015 y marzo del 2016. La población de estudio la componían los profesionales de UCI (médicos/as y enfermeras/os) y familiares o allegados de pacientes ingresados en ese momento en las unidades participantes. Se realizó un muestreo no probabilístico por conveniencia, en el que los participantes se seleccionaron sobre la base de los siguientes criterios de inclusión:

- Familiar o allegado que ejercía las funciones de cuidador principal, que aceptó participar en el estudio.
- Familiares de pacientes ingresados más de 48 h.
- Enfermeras/os con una experiencia mayor de 6 meses en unidades de críticos.
- Médicos/as con experiencia mayor de 6 meses en unidades de críticos.

Fueron los coordinadores del estudio en cada centro los que, aplicando los anteriores criterios de inclusión, seleccionaron a los participantes (profesionales y familiares).

Variables

Las variables de estudio fueron los temas y preguntas surgidos tanto de la revisión de estudios previos como de las aportaciones de profesionales y familiares de pacientes ingresados en las UCI en el período de estudio.

Procedimiento

Una vez realizado el reclutamiento de las unidades, y confeccionado el documento con el listado de preguntas recabadas de la literatura susceptibles de ser incluidas en los procesos informativos en la UCI, el estudio se desarrolló en varias fases.

- Fase 1: a través de los coordinadores se proporcionó a todos los participantes un documento con un «Listado inicial de preguntas». Dicho listado recogía 21 cuestiones seleccionadas como importantes para los familiares en un estudio previo realizado en Francia.

Los coordinadores seleccionaron a 20 participantes en cada unidad (10 profesionales –médicos/as y enfermeras/os- y 10 familiares/allegados) y distribuyeron entre ellos dicho listado con el objeto de que cada participante añadiera las cuestiones que considerasen que no se incluían en el listado propuesto por los investigadores. Los coordinadores de cada unidad introdujeron las preguntas obtenidas en sus unidades en una base de datos creada a tal fin.

De las 205 enfermeras/os seleccionadas, añadieron alguna propuesta el 100%, mientras que de los 205 médicos/as seleccionados añadieron alguna pregunta 151 (74%). Agrupando a médicos/as y enfermeras/os, los 410 profesionales seleccionados, añadieron alguna propuesta 356 (87%). De los 410 familiares seleccionados, añadieron alguna propuesta 203 (50%); el 50% restante creía recogidas sus cuestiones en el documento inicial. Tres investigadores analizaron de manera independiente las 2.095 preguntas, propuestas por las 205 enfermeras/os, 203 familiares y 151 médicos/as, y llevaron a cabo un análisis cualitativo de validación de contenido eliminando las redundancias y sintetizando aquellas cuestiones que no eran generalizables a casos habituales. Se trianguló dicho análisis para alcanzar un consenso. A partir de este consenso, se generó el segundo documento denominado «Listado final de preguntas», que contenía 82 cuestiones susceptibles de ser tenidas en cuenta en los procesos informativos agrupadas en 8 categorías (fig. 1).

Figura 1 Categorías presentes en el «Listado final de preguntas». Las 82 cuestiones fueron agrupadas en 8 categorías. A continuación del nombre de la categoría, el número de preguntas que contenía cada una.

<u>- Fase 2:</u> el «Listado final de preguntas» se envió de nuevo a los coordinadores para que profesionales y familiares marcaran el grado de importancia que tenía cada una de las cuestiones del documento. Se les pidió que eligieran una puntuación para cada una de ellas usando una escala tipo Likert con un rango de 1 a 9, donde 1 se correspondía con «poco importante» y 9 «muy importante». Además, en esta fase se les pidió que

indicaran qué profesional consideraban adecuado para resolver cada una de las 82 preguntas, pudiendo responder «médico/a», «enfermera/o» o «ambos». En esta fase se recibieron 654 respuestas, de las cuales 287 fueron de familiares (70%), 190 de enfermeras/os (92%) y 177 de médicos/as (86%), que se incorporaron a la base de datos general. Análisis de datos En la fase 1 se realizó un análisis de contenido de tipo inductivo, sintetizando las 2.095 preguntas recibidas. Esa síntesis produjo el listado de 82 preguntas que se utilizó en la fase 2. Un segundo análisis de contenido, más analítico, las agrupó bajo temas más amplios. El rigor se aseguró a través de la triangulación de investigadores. Tras la segunda fase se ordenaron todas las cuestiones mediante medidas de frecuencia y de tendencia central de las puntuaciones obtenidas para cada una de las 82 preguntas (variables del estudio). Con ello se estableció un listado priorizado sobre la base de la media de las puntuaciones obtenidas en cada una de las variables estudiadas tanto desde la perspectiva de los familiares como de los profesionales. Para analizar la diferencia entre las percepciones de familiares y profesionales se recurrió al test no paramétrico U de Mann-Whitney para distribuciones de datos que no siguen criterios de normalidad. Se consideró significación estadística para una $p < 0,05$. Finalmente, se usó estadística descriptiva, mediante porcentajes y distribución de frecuencias para ordenar las distintas preguntas sobre la base de qué profesionales piensan los participantes que pueden contestar cada una de ellas. Dicho análisis se realizó así mismo considerando la perspectiva de familiares y profesionales.

Resultados

Cuestiones más importantes para los familiares: preocupación por la situación clínica, medidas a tomar, pronóstico e información. Existió coincidencia entre familiares y profesionales en las cuestiones prioritarias para las familias. Existieron diferencias significativas en la importancia dada a cada pregunta: entre médico/as y familiares (72/82 preguntas) y entre enfermeras/os y familiares (66/82 cuestiones) ($p< 0,05$). Para los familiares, el 63% de las preguntas podrían ser contestadas por médicos/as o enfermeras/os indistintamente, el 27% preferentemente por los médicos/as y 10% por las enfermeras/os.

Tercer estudio: Distrés moral, impacto emocional y estrategias de afrontamiento en el personal de las Unidades de Cuidados Intensivos durante el brote de COVID-19. *Intensive and Critical Care Nursing. 2022*

Estudio multicéntrico, transversal, de tipo descriptivo y correlacional para evaluar el distrés moral, posibles problemas de salud emocional asociados (ansiedad y depresión) y estilos de afrontamiento de los profesionales de UCI durante la primera ola de la pandemia COVID-19 en España.

Métodos

Diseño del estudio y participantes

El ámbito de estudio fueron las UCI y los espacios reconvertidos en UCI de hospitales públicos y privados durante la primera ola de la epidemia de COVID-19 en España. La población de estudio fueron los profesionales de UCI que trabajaron en estas unidades entre febrero y mayo de 2020. Los criterios de inclusión fueron ser mayor de 18 años de edad y trabajar en UCI durante la pandemia. Los criterios de exclusión fueron trabajar en UCI pediatría o en unidades de cuidados intermedios. Se realizó un muestreo no probabilístico de tipo consecutivo hasta obtener el tamaño de la muestra. Se calculó una muestra de 427 individuos para estimar un porcentaje poblacional alrededor del 50% (con un intervalo de confianza del 95% y precisión de +/-5 unidades porcentuales). Se estimó un porcentaje de reposiciones necesaria del 10%.

La captación de sujetos se realizó a través de un llamamiento por las redes sociales del Proyecto de Investigación Internacional para la Humanización de las Unidades de Cuidados Intensivos (HU-CI).

Recogida de datos

La recogida de datos se realizó desde marzo a junio del 2020, mediante formulario online que incluía las siguientes escalas:

- Características demográficas y ocupacionales: Escala ad-hoc para la evaluación del género, edad, número de hijos, profesión, funciones gestoras, tipo de hospital, servicio habitual de trabajo, lugar de trabajo durante la pandemia, tipo de habitación de UCI, número de pacientes/día a su cargo, número de horas trabajadas/semana y baja laboral durante la pandemia.

- Adaptación española del Measure of Moral Distress for Health Care Professionals (MMD-HP) de Epstein et al. (2019) por Rodríguez-Ruíz et al. (2021a): cuestionario autoadministrado para la evaluación del distrés moral, con 27 ítems en una escala de tipo Likert con cinco opciones de respuesta en frecuencia (de 0 nunca a 4 frecuentemente) e cinco en intensidad (de 0 ninguna a 4 mucha). Tras la multiplicación de ambas evaluaciones para cada ítem (variando el resultado de 0 a 16) y sumando todos los resultados, se obtiene una puntuación global de distrés moral en un rango de 0 a 432 (a mayor puntuación, mayor distrés moral). El cuestionario también incluye una pregunta abierta donde el profesional puede plantear otras situaciones relacionadas con el distrés moral no incluidas en el instrumento, y dos ítems complementarios relativos a la posibilidad de abandono de la profesión (en el pasado y en la actualidad debido al distrés moral). En este estudio, el coeficiente alfa de Cronbach para esta escala fue 0,93.

- Adaptación española de Brief COPE de Carver (1997) por Crespo y Cruzado (1997). Está conformada por 28 ítems que evalúan formas de afrontamiento en función de su uso en mayor o menor medida. Escala tipo Likert con cuatro opciones de respuesta que va desde 0 (en absoluto) a 3 (mucho). Se obtienen catorce estilos de afrontamiento: afrontamiento activo, planificación, apoyo instrumental, uso de apoyo emocional, auto-distracción, desahogo, desconexión conductual, reinterpretación positiva, negación, aceptación, religión, uso de sustancias (alcohol, medicamentos), humor y autoinculpación. El coeficiente alfa de Cronbach para esta escala fue de 0,78.

- Versión española de la escala Generalized Anxiety Disorder (GAD-7) de Spitzer, et al. (2006) por Garcia-Campallo et al. (2010). Siete ítems que refieren síntomas y discapacidad asociada a la ansiedad generalizada con cuatro opciones de respuesta tipo Likert que van desde 0 (en absoluto) a 3 (casi a diario). Se obtiene una puntuación total de la suma de los ítems, que oscila entre 0 y 21. De acuerdo a los autores originales, la puntuación total podría ser categorizada en cuatro grupos de gravedad: mínima (0-4), media (5-9), moderada (10-14) y grave (15-21). El coeficiente alpha de Cronbach fue de 0,92.

- Adaptación española del Cuestionario sobre la Salud del Paciente (PHQ-9) de Kroenke et al., 2001; Kroenke et al., 2002; Spitzer et al., 1999) por Díez-Quevedo et al. (2001). Evalúa sintomatología de carácter depresivo y está compuesto por nueve ítems con cuatro opciones de respuesta de tipo Likert de 0 (en absoluto) to 3 (casi a diario), que hacen referencia a las últimas dos semanas. Se obtiene una puntuación total que oscila entre 0 y 27 (5–9 es clasificado como depresión leve, 10–14 como depresión moderada, 15–19 como depresión moderadamente grave, y ≥20 como depresión grave). El alfa de Cronbach para PHQ-9 fue de 0,892 (Sun et al., 2020).

Análisis de datos

Se realizó un análisis descriptivo de todas las variables. Para la descripción de la muestra se utilizaron parámetros de centralización y dispersión (media, mediana, desviación estándar y dispersión) para las variables cuantitativas y para las variables cualitativas los resultados se informaron en forma de porcentajes y frecuencias. Para determinar la relación entre las variables principales y las demográficas o laborales se utilizó la correlación de Pearson, prueba de Mann-Whitney para variables con dos categorías y el test Kruskal-Wallis para variables de más de dos categorías; también se utilizó el test Chi-cuadrado de Pearson. Se realizaron modelos multivariados de regresión lineal para explorar la capacidad predictiva del distrés moral y afrontamiento sobre ansiedad y depresión. Para construir el modelo depurado se eliminaron una a una las variables de menor significación estadística, controlando la modificación de los coeficientes β (factor de confusión). Para el diagnóstico de los modelos se utilizaron F de Snedecor ($p < 0{,}05$) y R^2 ajustada.

La información recopilada de la pregunta abierta de la Measure of Moral Distress for Health Care Professionals (MMD-HP) se analizó mediante el análisis de contenido basado en código con el programa NVivo-12.

Resultados

El distrés moral durante la pandemia está determinado por situaciones relacionadas con el paciente y familia, la unidad y la gestión de recursos de las organizaciones. El profesional alcanzó niveles moderados de distrés moral, ansiedad y depresión ya durante la primera ola de la pandemia. Los profesionales que procedían de otros servicios presentaron mayores puntuaciones en esas variables que los habituales de UCI ($p=0{,}04$; $p=0{,}038$ y $p=0{,}009$ respectivamente), así como mayor intención de abandono ($p=0{,}03$). La idea de abandono es también mayor en los profesionales que trabajaron en espacios reconvertidos en UCI (45,2%) que en UCI habituales (40,2%) ($p=0{,}02$). El distrés moral junto a estilos de afrontamiento principalmente evitativos explica un 37% (R^2aj) de la varianza de ansiedad, y un 38% (R^2aj) de la varianza de depresión.

Cuarto estudio: Intervención psicológica en crisis-emergencias en el personal de UCI durante la pandemia COVID-19. *Journal of Clinical Nursing. 2021*

Estudio observacional, multicéntrico de carácter retrospectivo con datos mixtos cualitativos y cuantitativos para explorar los principales sentimientos y estrategias de afrontamiento en crisis de profesionales de UCI durante la primera fase de la pandemia COVID-19 y valorar su grado de satisfacción tras una intervención psicológica en crisis-emergencias.

Métodos

Diseño

Estudio multicéntrico, observacional, descriptivo y retrospectivo con datos mixtos cualitativos y cuantitativos en respuesta a una intervención psicológica en crisis-emergencias para profesionales en primera línea de UCI sanitarios y no sanitarios de abril a junio de 2020 en 16 hospitales de 3 regiones (Cataluña, Madrid y Castila La Mancha) en España.

Participantes

La población a estudio estuvo compuesta por todos los profesionales sanitarios (médicos, enfermeras, técnicos auxiliares en enfermería, fisioterapeutas, gestores) y no sanitarios (celadores, personal de limpieza, estudiantes) de primera línea que desarrollaron su actividad profesional en estas unidades durante la pandemia COVID-19; incluidos aquellos en situación de incapacidad laboral por enfermedad o aislamiento debido al contagio. El reclutamiento fue consecutivo y adaptado a las características del hospital, incluyendo folletos impresos en el tablón de anuncios de cada UCI, una aproximación cara a cara a los participantes o a través del correo electrónico del hospital. La participación fue voluntaria y no se contempló ningún criterio de exclusión. Tras la intervención, se invitó a los participantes a responder una encuesta de satisfacción.

Intervención

Se llevó a cabo una intervención psicológica en crisis-emergencias en la UCI. La intervención fue diseñada y coordinada por el proyecto HU-CI. Para la selección de los psicólogos se solicitó la colaboración de los Colegios Oficiales de Psicología de las regiones implicadas en base a los siguientes criterios: (1) ser psicólogo clínico especialista o psicólogo general, (2) tener formación de centro oficial (universidades, colegios profesionales, etc.) en Psicología de Crisis-Emergencias y (3) tener experiencia profesional en esta área de un mínimo de 2 años. Se contrató a un total de 18 profesionales expertos en Psicología de Crisis y Emergencias (15 mujeres y 3 hombres), que desarrollaron su actividad con una doble intervención:

1. Intervención presencial: ocho horas semanales para brindar atención psicológica individualizada, realización de grupos de soporte e intervención ante incidentes críticos.
2. Intervención online o telepsicología: veinte horas semanales por teléfono o videollamada en horario de mañana y tarde.

La intervención se adaptó al tamaño, demandas y necesidades específicas de cada centro. Por ejemplo, en algunos hospitales, las sesiones presenciales se repartieron en más de un día o de forma partida, para poder acceder a diferentes turnos de trabajo. Los objetivos fueron los propios de este tipo de intervenciones: atender de forma individual y grupal facilitando a los profesionales el acceso a la intervención que voluntariamente prefieran; actuar de modo preventivo y proactivo para facilitar el bienestar de las personas; acercar la intervención al contexto donde se vive la situación e informar y normalizar la sintomatología física y emocional asociada a la situación crítica (tanto presente, como futura); aportar pautas y técnicas de carácter preventivo; identificar y facilitar la gestión de conflictos derivados de la situación; fomentar la comunicación y cohesión grupal en el equipo de intervinientes; proporcionar un espacio "libre de estrés"; identificar y fortalecer los propios recursos de afrontamiento y de autocuidado; y reconocer el esfuerzo y labor desempeñada.

Procedimiento

El programa se organizó en tres fases:

Fase 1. Preparación de la intervención

En marzo, el Proyecto HU-CI solicitó ayuda para llevar a cabo una intervención preventiva ante la sobrecarga emocional derivada de la pandemia COVID-19 en profesionales en las UCI. Esta llamada fue atendida por cuatro empresas financiadoras (Fundación REALE Seguros, AstraZeneca, MSD y MyInvestor) que brindaron el apoyo económico para la contratación de los psicólogos. Se firmaron convenios de colaboración con las empresas financiadoras con el compromiso y obligaciones de cada una de las partes. La persona responsable del Área de Psicología y Cuidado Emocional de Proyecto HU-CI fue la Coordinadora del Programa e investigadora principal (IP). Desde Proyecto HU-CI se diseñó el protocolo de intervención y los criterios para la selección de los psicólogos. Se elaboró un manual de actuación para los profesionales seleccionados con documentación informativa sobre las UCI y el COVID-19, normas de prevención, objetivos de la intervención y pautas de actuación, plantillas para reportar las actividades semanales y mensuales, e instrumentos para recogida de consentimientos informados y evaluación de la satisfacción de participantes.

Fase 2. Contratación de psicólogos en situación de crisis-emergencia e implementación de la intervención

El programa se ofertó a través de las redes sociales de Proyecto HU-CI y de algunas entidades oficiales de salud mental de las regiones participantes, y 16 hospitales expresaron su interés en participar. Se establecieron acuerdos de colaboración con la gerencia de cada hospital y se contactó con los Colegios Oficiales de la Psicología de cada región para seleccionar a los profesionales. Una vez reclutados, los psicólogos tuvieron reuniones virtuales preparatorias con Proyecto HU-CI para discutir las diferentes formas de intervención y las necesidades psicológicas de los participantes. El IP destacó la importancia de registrar los informes, durante y después de las intervenciones, utilizando el formulario estandarizado e incluyendo las palabras utilizadas por los participantes, sin ninguna información personal. Se proporcionó a cada psicólogo un teléfono móvil para la intervención.

Fase 3. Desarrollo de la intervención

En cada UCI, se designó una persona de referencia para colaborar en la coordinación local de la intervención. El programa de intervención se dio a conocer mediante carteles impresos en el tablón de anuncios de cada UCI con el nombre del psicólogo, el horario de atención, su correo electrónico y el teléfono de contacto. Se elaboró una guía para las intervenciones. Esta se organizó en tres partes: 1) Evaluación inicial (que incluía las visiones de los participantes sobre los factores de riesgo/protección para afrontar la situación, así como los síntomas fisiológicos, cognitivos, motores y emocionales que sentían); 2) El tipo de intervención proporcionada (escucha activa y compasiva; diálogo con preguntas abiertas para ayudarles a contar su experiencia, desahogarse, dar validación emocional, normalizar las reacciones (contextualización y resignificación) y dar y recibir apoyo de los compañeros; psicoeducación en cuanto a pautas para manejar el estrés; la regulación de las emociones; la desactivación fisiológica, cognitiva y motora; y refuerzo del autocuidado, del afrontamiento funcional (individual y grupal) y de la cohesión del grupo; y 3) Observaciones y anotaciones finales.

Todas las intervenciones se iniciaron con un enfoque general de la situación de COVID-19 en las UCI y se introdujeron gradualmente las percepciones y experiencias de los participantes.

Se crearon grupos de apoyo, informando con antelación a los posibles participantes mediante anuncios impresos en los que se indicaba la fecha y la hora de la reunión. Se celebraron en una sala de reuniones tranquila cerca de la UCI proporcionada para este fin. Como el objetivo principal de la intervención era ayudar a los profesionales a hacer frente a la crisis, no se celebraron grupos profesionales específicos, y los grupos de apoyo se abrieron a todo el personal, combinando trabajadores sanitarios y no sanitarios que comparten la misma unidad y el mismo turno. Se organizaron sesiones individuales a petición de los trabajadores de cuidados intensivos (con seguimiento si era necesario). Las reuniones presenciales se celebraron en una sala tranquila de la UCI, mientras que las reuniones de telepsicología se programaron para las sesiones de seguimiento. Todas las intervenciones duraron aproximadamente 40-60 minutos. Las intervenciones psicológicas individuales se adaptaron a cada participante según sus necesidades. Duan y Zhu destacan que la intervención psicológica durante el COVID-19 debe ser lo suficientemente dinámica y flexible como para adaptarse rápidamente a las diferentes fases de la pandemia. Teniendo en cuenta la naturaleza de la crisis de emergencia, su realización en el propio lugar de trabajo, y la confidencialidad de las intervenciones, se decidió no grabarlas en audio para garantizar la libertad en las respuestas. Para cada intervención realizada, el psicólogo redactó un informe asistencial estructurado, recogiendo notas descriptivas, contextuales, inferenciales y metodológicas. Se incluyeron transcripciones textuales de palabras, expresiones y ejemplos literales expresados por los participantes. Estos informes se enviaban semanalmente a la IP, que brindó soporte y supervisión a los psicólogos durante la intervención. Con el objetivo de mantener informada a la persona de contacto de cada UCI sobre el proceso de intervención, mensualmente, se envió un breve informe de la actividad realizada (con datos cuantitativos y cualitativos sin referencias clínicas ni datos personales).

Recogida de datos

Los datos cualitativos se obtuvieron mediante los informes asistenciales individuales y grupales de los psicólogos participantes. Los datos cuantitativos se evaluaron con una encuesta de satisfacción no validada y online *"ad-hoc"* de 21 ítems que se envió a los participantes con el objetivo de controlar la calidad del programa. La encuesta incluyó preguntas cerradas y abiertas y se organizó en seis apartados: objetivos generales de la actividad (6 ítems), objetivos específicos (4 ítems), aspectos técnicos de la intervención (3 ítems), evaluación de los psicólogos (3 ítems), y satisfacción general (1 ítem), todos ellos con escala de respuesta tipo Likert de 11 puntos, de 0 (nada satisfecho) a 10 (muy satisfecho). Además, se incluyó un último apartado con preguntas de opinión sobre cuatro aspectos: si recomendaría este tipo de intervención psicológica, lo más valorado de la intervención, posibles aspectos de mejora en la actividad realizada y detección de necesidades en la UCI que le gustaría se atendieran en un futuro. Se envió un enlace de la encuesta por teléfono o a través del correo electrónico del hospital a todos los participantes. Tenían un mes para responderla y se envió un recordatorio a las dos semanas. La encuesta se contestó online cumplimentándose en unos 10 minutos y garantizándose el anonimato de las respuestas. Las respuestas a la encuesta se recibieron en una web específica designada para este fin a la que sólo tenía acceso la IP.

No se incluyó ninguna información personal en la encuesta, garantizando el anonimato de las respuestas.

Análisis de los datos

Datos cualitativos

Se realizó un análisis de contenido manifiesto de un total de 553 informes asistenciales (individuales y grupales) utilizando el método de Graneheim y Lundmand. Dos investigadoras analizaron de forma independiente los informes de los psicólogos en cuatro etapas: descontextualización, recontextualización, categorización y recopilación. Inicialmente se identificaron unidades de significado que posteriormente se agruparon en códigos. Los códigos se agruparon en subcategorías y categorías de acuerdo con su similitud. Las categorías finales fueron revisadas críticamente por el equipo de investigación. Se garantizó el rigor y la confiabilidad durante todo el proceso.

Datos cuantitativos

Se realizó un análisis descriptivo de los ítems de la encuesta de satisfacción. Las variables categóricas se describieron con el porcentaje y el número de casos. Las variables cuantitativas se presentaron como media y desviación estándar. El análisis se realizó con el programa IBM-SPSS (v.24.0). Se siguieron los criterios consolidados para la presentación de informes de investigación cualitativa (COREQ).

Resultados

Se realizaron 553 intervenciones (361 individuales y 192 grupales). Se identificaron cuatro categorías: 1-Desequilibrio entre demandas y recursos laborales; 2-Respuestas de estrés agudo; 3-Consecuencias personales y profesionales y 4-Factores de protección. El factor protector principal identificado fue la cohesión grupal y el apoyo social percibido. La media en satisfacción general con la intervención fue alta y un 96,2% (n=252) de los participantes la recomendaría en el futuro.

Resumen global de resultados y breve discusión

Como se ha podido argumentar con los artículos presentados, aterrizar el concepto de la humanización de las UCI precisa ir de la mano de la investigación colaborativa multicéntrica. Era un cuerpo del conocimiento que no tenía antecedentes tan concretos y estructurados previamente, al menos en España.

Existen en la literatura de diferentes países guías de práctica clínica sobre la atención centrada en el paciente y la familia[1-4], y que son de obligada lectura y referencia. Estas guías identifican la evidencia actual para las mejores prácticas de atención centrada en la familia en la UCI. Sus recomendaciones son débiles, lo que pone de manifiesto lo incipiente de este camino y la importancia de la investigación futura para identificar las intervenciones más eficaces para mejorar este aspecto fundamental de la atención en la UCI. Desde mi punto de vista, esas guías constan de dos debilidades: primera, nunca han incluido el bienestar o el cuidado de los profesionales como parte fundamental de los sistemas de salud; y segunda, no incluyen métodos objetivos para la medición y el cumplimento de las recomendaciones prácticas que hacen.

La conceptualización del modelo de atención centrada en la persona en este ámbito de la asistencia tan concreto y especializado precisaba de un método homogéneo, de la creación de un modelo medible, exportable y reproducible en cualquier parte del mundo. Por tal motivo, en primera instancia se desarrolló el Plan de Humanización de las Unidades de Cuidados Intensivos de la Comunidad de Madrid dentro del Plan de Humanización de la Asistencia Sanitaria 2016-2019[5] y que se ha presentado en esta tesis. Dicho documento consta de ocho líneas estratégicas, cada una de las cuales consta de objetivos generales y específicos, actividades concretas para el cumplimiento de dichos objetivos, un registro de dichas actividades, un indicador y un estándar de cumplimiento, con una periodicidad y un responsable de la actividad. Tras el periodo de trabajo e implementación, la Consejería de Sanidad de la Comunidad de Madrid publicó el informe de evaluación final del plan de Humanización de la Asistencia Sanitaria 2016-2019[6]: de las 102 actividades propuestas, el nivel de puesta en marcha en el ámbito asistencial era de un 91,8% (80,6% ejecutadas más 11,2% iniciadas).

Hasta la fecha no existe un documento similar, y sirvió como base inicial de la publicación en 2017 del "Manual de Buenas Prácticas de Humanización para las Unidades de Cuidados Intensivos"[7], un documento con carácter internacional. Además, era preciso diseñar una herramienta de autoevaluación mediante un formulario online, de tal manera que las Unidades que así lo deseen pudieran analizar el grado de cumplimiento de las buenas prácticas con el objeto de conocer su nivel basal de humanización, y programar las correspondientes acciones de mejora para transformar su realidad hacia este modelo. Dicho manual consta en su primera edición de 159 buenas prácticas, divididas en siete líneas estratégicas (una menos que en el Plan), puesto que la línea 1 (Política de puertas abiertas en la UCI: horarios flexibles adaptados a cada paciente y familia) y la línea 4 (Presencia y participación de las familias en los cuidados) tenía sentido fusionarlas: si la familia no tiene acceso a la UCI, difícilmente podrá colaborar en los cuidados. En 2019 se actualizó a su segunda edición[8], revisándose el contenido y ampliando una buena práctica más hasta las 160. Actualmente, el manual y la herramienta de autoevaluación están disponibles de forma gratuita en la web de Proyecto HU-CI en tres idiomas: español, portugués e inglés[9].

Estas herramientas han servido como hoja de ruta para UCI de todo el mundo (más de 250 unidades se han interesado por este proceso y han rellenado el formulario de autoevaluación) lo que probablemente ha servido para empezar un camino nunca antes transitado y, en parte, homogeneizar la asistencia humanizada. En febrero de 2020, justo un mes antes de iniciarse la pandemia, se presentó en Orlando en el XIII Congreso Panamericano e Ibérico de Medicina Crítica y Terapia Intensiva la comunicación *Resultados de autoevaluación del cumplimiento de las buenas prácticas en humanización de proyecto HU-CI en España: construyendo el mapa de la humanización*[10]. Se trataba de un estudio descriptivo multicéntrico de corte transversal realizado durante 2018-2019, en el que participaron 75 UCI del total de las 280 UCI registradas en España (tasa respuesta 27%). El porcentaje de cumplimiento por líneas estratégicas se resumen en la tabla 1.

Tabla 1: Porcentaje de cumplimiento de buenas prácticas por líneas estratégicas

Línea Estratégica	**% Cumplimiento**
Línea 1: Uci de puertas abiertas. presencia y participación de los familiares en los cuidados (30 buenas prácticas).	40.6%
Línea 2: Comunicación (18 buenas prácticas).	40.1%
Línea 3: Bienestar del paciente (25 buenas prácticas).	54.6%
Línea 4: Cuidados al profesional (12 Buenas prácticas).	40.9%
Línea 5: Síndrome postcuidados intensivos (19 buenas prácticas).	41.5%
Línea 6: Cuidados al final de la vida (22 buenas prácticas).	50.9%
Línea 7: Infraestructura humanizada (33 buenas prácticas).	55%.

Por lo tanto, se pudo concluir que el cumplimiento de las buenas prácticas en Humanización en las UCI analizadas oscilaba entre el 40 y 55%, y que la herramienta permitía la autoevaluación y disponer de información homogénea y estructurada relacionada con las líneas estratégicas. En definitiva, ya previamente a la pandemia existía un gran margen de mejora y un desafío para la transformación del modelo de gestión de las UCI españolas hacia la Humanización. Dicho cambio, por lo tanto, se trata de un proceso en cada organización que tiene que ser analizado, programado y conseguido por cada unidad.

De todas las líneas estratégicas que componen el constructo de la humanización de la UCI, la comunicación podría ser la llave que abriera todas las puertas y sirviera para prevenir y resolver conflictos[11]. Uno de los aspectos que con mayor frecuencia se recoge en la literatura como fuente de insatisfacción para los familiares es la percepción de una deficiente o mala comunicación con los profesionales sanitarios. Existen importantes deficiencias formativas de los profesionales en cuanto a procesos comunicativos y como consecuencia la comunicación con las familias suele realizarse siguiendo los modelos de los colegas más veteranos y sobre la base de sus propias experiencias y equivocaciones[12]. Además de mejorar el cómo, es necesario conocer el qué, es decir, cuáles son las prioridades informativas desde el punto de vista de quiénes van a recibirlas. Nuestro trabajo muestra que los familiares destacan los temas sobre supervivencia, secuelas y su impacto. Desean saber además cómo se les va a ir informando, cómo se va a controlar la situación del paciente, cómo se va a asegurar el bienestar del paciente y qué opciones se plantean. Conforme se baja en la jerarquía, las demandas son más concretas y se refieren a cómo va a ser el plan terapéutico, qué debe hacer la familia o cómo son los dispositivos que se están empleando, entre otros. Los resultados presentados revelan que familiares y profesionales percibimos las demandas informativas de manera distinta. Por tanto, se aporta conocimiento acerca de cómo de importante son los temas para unos y para otros. Por una parte, profesionales y familiares jerarquizan las prioridades informativas de manera diferente. Existe más coincidencia entre médicos/as y enfermeras/os y mayor divergencia entre médicos/as y familiares. Por otra parte, se detecta la tendencia en los profesionales a puntuar a la baja. Dicho de otra manera, para los familiares las cuestiones adquieren más importancia que para los profesionales. Esta diferencia puede tener una explicación en la preocupación y desconocimiento de las familias de determinadas situaciones que los profesionales tienen asumidas como cotidianas y que consideran que no revisten importancia en general desde un punto de vista clínico.

Por último, en esta investigación se contribuye al debate de quién y sobre qué cuestiones desean los familiares que les informen los diferentes profesionales. Los familiares consideran que gran cantidad de cuestiones relevantes para ellos pueden ser contestadas indistintamente por la enfermera/o o por el médico/a (en el 63% de las preguntas la respuesta sobre quién debía contestar a las cuestiones fue «ambos» para los familiares). De las preguntas que consideran que deben ser preferentemente contestadas por los médicos/as o por las enfermeras/os, atribuyen a los médicos/as aquellas cuestiones relacionadas con el pronóstico, secuelas, tratamiento y diagnóstico. Por otro lado, consideran a las enfermeras/os como los profesionales más adecuados para resolver preguntas relacionadas con cuidados, sensaciones, entorno y normas, entre otros. En consonancia con estos resultados, las guías de la Society of Critical Care Medicine de atención a familiares de pacientes críticos[1-2] afirman que la información debe ser una labor de equipo y se recomienda la información conjunta entre ambos profesionales. Sin embargo, en la práctica, se dan muchos factores relacionados con la legislación, la organización de los servicios, la formación y competencia profesional e incluso con intereses profesionales, que dificultan la información conjunta entre ambos profesionales. Por ejemplo, en España la norma en la mayoría de las unidades hace recaer la responsabilidad de la información familiar en exclusiva sobre el médico/a, de forma que lo habitual suele ser que informe solo/a, o médicos/as y enfermeras/os por separado, siendo muy escasas las unidades en las que médicos/as y enfermeras/os proporcionan información a los familiares de forma conjunta[13]. La enfermera/o suele desconocer qué información le ha sido proporcionada al familiar, por lo que para evitar contradicciones mide cautelosamente el discurso, aportando información breve y no comprometedora. A pesar de que existen iniciativas que intentan cambiar esta práctica[14,15], la enfermera/o ha tendido a ausentarse en el proceso informativo[16] e incluso a justificar que no forma parte de su competencia. Son frecuentes manifestaciones que restan importancia a la información y que rechazan la comunicación con los familiares[17,18].

Cabe señalar que un estudio de estas características debe generalizarse con cautela. Al comparar nuestros resultados con los de Peigne et al.[19], existe coincidencia en 9 de las 21 preguntas que se consideraron más importantes. Aunque en ambos trabajos aparecen preguntas sobre pronóstico, tratamiento e información, en el estudio francés aparecen preguntas sobre la implicación de las familias en los cuidados o en la toma de decisiones. Esta desigualdad puede tener origen en diferencias culturales de las poblaciones encuestadas o en diferentes políticas de información entre los dos países que deben ser tenidas en cuenta. Una comunicación de calidad requiere entrenamiento y la colaboración de un equipo que funcione adecuadamente[20]. Es preciso evaluar cómo se abordan estos aspectos en cada institución, qué herramientas usamos y cómo nos posicionamos cada uno de nosotros, revisando el papel que adoptamos en la comunicación con nuestros compañeros y con los pacientes y familiares. Resulta necesario también implementar las recomendaciones presentes en la bibliografía y evaluar los resultados de su implantación[21]. Adecuar la información y la comunicación de los profesionales sanitarios a las demandas y las necesidades de los familiares de los pacientes críticos ayudará a mejorar su percepción de la atención recibida y a afrontar mejor estos difíciles momentos.

Y para que los equipos funcionen adecuadamente, hay que tener también en cuenta las expectativas, vivencias, ideas y condiciones laborales de los profesionales que los componen[22]. Sobre los sistemas sanitarios ya previamente tensionados, llegó en 2020 la pandemia por SARS-CoV2 que arrasó todo como un tsunami y que nos hizo vivir cosas que jamás imaginamos. La pandemia ha tirado por tierra gran número de las medidas de humanización que se estaban poniendo en marcha en las UCI. El tercer estudio que compone esta tesis doctoral ha profundizado en la investigación sobre distrés moral en el personal de UCI, un área escasamente investigada en población española debido a la reciente validación en nuestro idioma de su principal instrumento de medida[23]. Coincidiendo con los datos a nivel internacional durante la pandemia[23-26], nuestros resultados informan de la presencia de un riesgo real, aunque moderado de distrés moral en las UCI españolas ya en los primeros meses de la pandemia. El perfil de riesgo es mayor en mujeres, profesionales jóvenes que no desempeñaban puestos de gestión, con una mayor presencia en enfermeras, pero sin diferencias significativas en función de la profesión. Algunas investigaciones indican que son las enfermeras las más afectadas por el distrés moral[27-29], y otros trabajos encuentran algunas inconsistencias en las diferencias entre profesionales sanitarios[30]. En el marco de las UCI, el trabajo en equipo de forma interdisciplinar es absolutamente necesario para el día a día[31] más aún en tiempo de pandemia. Esta forma de trabajo permite la exposición compartida a situaciones moralmente desafiantes, un clima ético común que sabemos es clave en la explicación del distrés moral[32-34]. También permite una vivencia colectiva del estrés[35] que facilita respuestas comunes y compartidas ante el mismo.

Los datos obtenidos en los ítems abiertos de esta investigación ejemplifican situaciones relacionadas durante la pandemia en el desarrollo del distrés moral coincidentes con otros estudios cualitativos[36]. Estas situaciones se enmarcan en los tres grupos teóricos establecidos por Hamric y Epstein[37]. El primer grupo es designado "paciente y familia", y en nuestro estudio, los profesionales han encontrado grandes dificultades para paliar el sufrimiento mediante los estándares y prácticas habituales de trabajo especialmente frente a la muerte en soledad. El segundo grupo, "unidad y profesional", se refiere a situaciones de elevada presión asistencial en la UCI en las que las acciones percibidas como éticamente correctas se volvieron difíciles debido a la necesidad de coordinación con profesionales noveles o inexpertos en cuidados críticos. Tercero, "el propio sistema u organización": donde la falta de recursos logísticos, humanos y de EPI han generado situaciones en las que los profesionales conocían la acción éticamente correcta que debían hacer, pero no les ha sido posible llevarla a cabo.

Estas situaciones han influido en el distrés moral y salud mental de los profesionales de UCI y nuestros resultados muestran una clara correlación entre ambos. En consecuencia, profesionales con ansiedad, depresión y que han sufrido bajas laborales durante la pandemia presentan mayores niveles de distrés moral, y a su vez, el distrés moral junto a estilos de afrontamiento evitativos tales como la autodistracción, negación, abuso de sustancias o desconexión conductual, baja autoaceptación y elevada autoinculpación, tienen capacidad predictiva sobre esa sintomatología emocional.

Desde Lazarus y Folkman[38] conocemos cómo el afrontamiento activo permite realizar acciones para hacer frente al problema de forma directa, minimizar el impacto de la situación, regular las emociones, reinterpretar y buscar un sentido adaptativo, mientras que el afrontamiento pasivo o evitativo puede acentuarlo. A su vez, cuando lo vivido genera un daño moral como consecuencia de realizar o presenciar acciones que atentan contra el código moral, son frecuentes las estrategias de evitación y las atribuciones desadaptativas[39]. La presencia de distrés moral, también se relaciona en la muestra con una mayor intención de abandono del puesto de trabajo, coincidiendo con lo encontrado otros países como Irán[40], Lituania[41] o Estados Unidos[42]. Estos resultados pueden ser relevantes para la salud de los profesionales sanitarios y de las propias organizaciones sanitarias ya que el riesgo de intención de abandono estaba ya presente de forma previa a la pandemia, especialmente en enfermeras/os[43].

Todos estos resultados son especialmente significativos entre los profesionales sanitarios que han acudido a las UCI como refuerzos procedentes de otros servicios, y entre los profesionales que han realizado su trabajo en espacios hospitalarios reconvertidos en UCI. Además de obtener mayores niveles de distrés moral, ansiedad y depresión, estos profesionales presentan también mayor intención de abandono. Otras investigaciones en Europa no han informado de diferencias significativas en niveles de ansiedad entre el personal habitual y los trabajadores de refuerzo temporales en ansiedad; aunque estos últimos sí mostraron mayor sintomatología depresiva que el equipo habitual de la UCI[44]. Lo específico de esta situación de pandemia, con la reubicación de profesionales en UCI, ha generado situaciones en las que ha sido necesario el trabajo con un tipo de paciente no habitual para ellos, con características y evolución diferentes a las habituales, y que requiere afrontar toma de decisiones críticas muy específicas. Incorporarse con urgencia a las UCI no siempre ha permitido la formación y entrenamiento en el abordaje de dilemas éticos, que es una variable relacionada con el distrés moral[45], ni un adecuado entrenamiento en el manejo de la vía aérea, asociado por el contrario con menores niveles de distrés moral en UCI[46]. Desde el punto de vista del lugar de trabajo, la necesaria improvisación de UCI en espacios no preparados previamente para ello parece haber sido también una novedosa barrera externa ante los desafíos éticos y la salud emocional, reafirmando la influencia del ambiente sobre el bienestar de las personas, así como la importancia de crear un ambiente curativo y humanizado[47-49] que promueva así la humanización de las UCI[50]. Todo ello nos sirvió para demostrar la necesidad de la implementación de un programa de soporte psicológico que llevara a cabo el cuidado del equipo multidisciplinar durante una vivencia compartida, y así ejecutar un proyecto de humanización tangible esta vez dirigido a los profesionales de UCI. El cuidado de los profesionales[51] es una de las líneas prioritarias de actuación de Proyecto HU-CI, un mantra que se repite sistemáticamente desde las organizaciones pero que históricamente ha sido obviado. Solo si cuidamos de ellos podremos ofrecer una adecuada asistencia sanitaria y cuidados humanizados a pacientes y familiares.

Durante la pandemia pudimos ser testigos de cómo la sociedad civil aplaudía diariamente los esfuerzos y la entrega de los profesionales sanitarios, y cómo diferentes entidades del ámbito público o privado invertían sus recursos económicos en la compra de materiales como mascarillas, EPI o ventiladores mecánicos. Desde Proyecto HU-CI, nos pareció que había que ir más allá de lo puramente tangible, y que también era necesario dar ese soporte emocional a los profesionales en primera línea. Un nuevo paso de la utopía a la realidad, que se resume en la última parte que compone esta tesis con la realización de una intervención psicológica en crisis-emergencia proactiva y preventiva.

El análisis de contenido de los informes tras las intervenciones nos muestra un importante desequilibrio entre las demandas del trabajo que los profesionales de UCI tuvieron que abordar y los recursos necesarios para llevarlas a cabo. El Modelo de Demandas - Recursos Laborales[52] es uno de los principales marcos teóricos explicativos del proceso de estrés laboral y de otras variables relacionadas con el trabajo como el burnout o el *engagement*. Este modelo explica cómo ambos factores (demandas y recursos) tienen tanto efectos directos sobre la salud y la motivación, como indirectos e interactivos sobre el bienestar del profesional; ya que los recursos personales y grupales pueden amortiguar efectos desfavorables generados por elevadas demandas del contexto laboral[53]. Coincidiendo con el resultado de otros trabajos cualitativos en profesionales de UCI[54], los participantes refieren sentirse desbordados por demandas generadas por la pandemia en el trabajo en UCI para las que han carecido de suficientes recursos laborales. Este dato explicaría las respuestas de estrés agudo señaladas, y sus consecuencias sobre el bienestar individual y laboral. Esto era de suma importancia para los trabajadores no sanitarios y los estudiantes, que se sentían poco preparados en la formación sobre EPI y a menudo eran *"los últimos de la fila"* para aprender los protocolos y procedimientos. Estudios previos a la pandemia en personal sanitario, desde el modelo explicativo de demandas-recursos, confirman que ese desequilibrio se relaciona con la salud mental de los profesionales, pudiendo llegar a influir incluso en la seguridad del paciente[55]. Por otro lado, la presencia y desarrollo de adecuados recursos laborales permiten afrontar las dificultades con una mejora de la regulación de las emociones en el trabajo de las enfermeras[56]. Estos datos son claves a la hora de ofrecer intervenciones de soporte a profesionales sanitarios en la pandemia, ya que el incremento y desarrollo de recursos individuales y grupales será esencial para la prevención y control de aspectos que sabemos afectan a esta población tales como el incremento del distrés moral, el agotamiento emocional como dimensión del burnout y variables de salud mental tales como ansiedad, depresión o experiencias disociativas ante la situación crítica vivida[57,58].

Coherentemente con esa importancia de fomentar los recursos como forma de incidir directa e indirectamente en el bienestar emocional de los profesionales, resultará especialmente interesante el refuerzo de la cohesión grupal y el apoyo social. Esta dimensión aparece como principal estrategia funcional de afrontamiento en el presente estudio, y este resultado no es ajeno a características específicas de las UCI. Estas unidades son servicios donde el trabajo en equipo, realizado de forma interprofesional y con un objetivo común, forma parte del sentido del trabajo para el profesional y cobra especial importancia para la correcta atención a pacientes y familias[31]. Esta característica hace aún más patente la vivencia colectiva de las situaciones de alta demanda emocional que pueden ser potencialmente estresantes. Desde la propuesta del estudio y afrontamiento del estrés multinivel y transnivel de Peiró[35], debemos considerar el estrés laboral como un fenómeno tanto individual como colectivo, ya que los profesionales comparten las vivencias, los aspectos estructurales que afectan a esas experiencias, las fuentes de estrés grupales y las estrategias de afrontamiento. Respecto a éstas últimas, el modelo señala que las estrategias "colectivas", que siguen criterios y objetivos compartidos, serán más efectivas en el afrontamiento de las vivencias comunes de estrés[35,59]. A través de los grupos de soporte realizados en esta intervención, se facilitó la reflexión y desarrollo de aspectos relativos a la coordinación del trabajo, la interacción del equipo con pacientes y familiares y el soporte y apoyo social por parte de los compañeros de trabajo. Todos ellos son elementos colectivos de afrontamiento del estrés, y que han sido señalados por los participantes como esenciales en el afrontamiento y manejo de esta situación de pandemia en las UCI.

La satisfacción de los profesionales con la intervención realizada ha sido muy alta, y el 96.2% de los participantes la recomendarían en el futuro. Sin embargo, la satisfacción de los participantes se ha visto mermada por la baja tasa de respuesta, por lo que los resultados deben interpretarse con cautela. Las características del trabajo en UCI, la presión asistencial o la necesidad de trabajar con EPI son elementos que en esta pandemia han dificultado el acceso y desplazamiento de los profesionales a posibles actividades de soporte en otras áreas y servicios hospitalarios. Además, recientes metaanálisis sobre intervenciones psicológicas con profesionales sanitarios informan de que, en muchas ocasiones, los profesionales más afectados y con mayor necesidad de soporte emocional son los que menos consultan y lo solicitan[60]. Como señalan Pacheco y cols.[61], la efectividad de una intervención psicológica en crisis aumenta de modo directo en función de su proximidad, tanto al tiempo como al lugar del suceso. En nuestro caso, la realización de la intervención en la primera fase de la pandemia y en el propio lugar de trabajo de sus destinatarios ha sido calificada con un alto nivel de satisfacción. El diseño de la intervención y la específica capacitación de los psicólogos/as para llevarla a cabo ha facilitado el logro de los objetivos propuestos, y que esto sea claramente percibido por sus usuarios; siendo muy valorado el soporte recibido (con una satisfacción general de 8,5 sobre 10) y mostrando un especial reconocimiento hacia los profesionales que lo han llevado a cabo (con una valoración de 9,26 sobre 10).

Los resultados de este estudio han evidenciado dos realidades que deberían reflexionarse y abordarse: por una parte, la necesidad de crear una especialidad de enfermería de cuidados críticos que permita disponer de un mayor número de enfermeras/os especialistas capacitadas para la atención al paciente crítico, y por otra, la necesidad de incorporar psicólogos/as plenamente integrados en los equipos interdisciplinares de las UCI, elemento que coincide con una demanda generalizada en el Sistema Nacional de Salud español, donde esta pandemia ha mostrado los efectos de una carencia previa que deberá ser corregida para el afrontamiento de esta crisis y para el futuro[62]. *No se puede humanizar sin humanos*, tanto en cantidad como en calidad.

Como ha quedado de manifiesto, queda aún mucho camino por recorrer para transformar la realidad de las UCI hacia un modelo centrado en las personas no solo en España, sino en todo el mundo. Esta tesis pretende sentar las bases sólidas hacia este camino, que no puede ser recorrido en soledad y que precisa del compromiso y la participación de todos los grupos de interés. Por suerte, tenemos el mapa.

Conclusiones

- La Humanización de los Cuidados Intensivos es una necesidad percibida por pacientes, familias y profesionales.

- La investigación colaborativa multicéntrica es un método útil para detectar las necesidades de las personas y poder llevar a cabo planes de actuación acordes con dichas necesidades.

- Es necesario tener un método tangible, integral, estratégico y medible para la humanización de las UCI que afecta y comprometa a pacientes, familias y profesionales (y también a los gestores) en la búsqueda de beneficios compartidos.

- Los familiares de pacientes de UCI tienen unas demandas informativas prioritarias (pronóstico, gravedad y necesidad de información) que no siempre coinciden con la información que reciben por parte de los profesionales, que en ocasiones pueden subestimar sus demandas.

- Los familiares de pacientes de UCI consideran que la mayoría de sus inquietudes pueden ser resueltas indistintamente por médicos/as o enfermeras/os, lo que podría plantear un cambio en el modelo actual de información, responsabilidad prácticamente exclusiva de los médicos.

- Los profesionales de las UCI durante la pandemia COVID-19 percibieron un desequilibrio entre las demandas y los recursos laborales con respuestas de estrés agudo que tuvieron consecuencias sobre su salud individual, grupal y laboral.

- Los profesionales de UCI han presentado niveles de riesgo para el bienestar emocional ya durante la primera ola de la pandemia. El distrés moral vivido se relaciona con problemas de ansiedad, depresión y deseos de abandono de la profesión que deben ser objeto de atención, no solo en los profesionales habituales de UCI sino también en aquellos que acudieron a estas unidades como trabajadores de refuerzo.

- Las intervenciones preventivas y de soporte emocional a los profesionales, deberán considerar la psicoeducación sobre estilos de afrontamiento activos, el entrenamiento en el abordaje de dilemas éticos y la formación especializada para atender al paciente crítico.

- Se recomienda el desarrollo de intervenciones psicológicas en crisis-emergencias en el momento agudo y en el lugar de atención para reducir las respuestas de estrés.

- La cohesión grupal y el apoyo social percibido fue el principal factor de protección como elemento donde poder compartir emociones y vivencias sintiéndose comprendidos.

- Una intervención en crisis-emergencias ayudó a verbalizar e integrar la situación, y proporcionó estrategias para afrontar la experiencia vivida con una elevada satisfacción por parte de los participantes atendidos.

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Introducción

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Anexo 1: Artículos

Intensive Care Med (2017) 43:547–549
DOI 10.1007/s00134-017-4705-4

WHAT'S NEW IN INTENSIVE CARE

A plan for improving the humanisation of intensive care units

Gabriel Heras La Calle[1,2*], Ángela Alonso Oviés[1,3] and Vicente Gómez Tello[1,4]

In the past 30 years, there have been spectacular scientific and technological developments in intensive care units (ICU). This has been the cause of a notable increase in survival rates for patients admitted to these units [1]. In Spain, the Spanish Society of Critical and Intensive Medicine and Coronary Care Units (SEMICYUC) has estimated the survival rate at over 90% [2]. The standard of training and the performance of healthcare professionals dedicated to the critically ill patient are excellent. However, current health attention is frequently considered as dehumanised [3]. Social, professional, economic or ethical factors can contribute to this.

The intensive use of technology has meant that the human and emotional needs of patients, families and professionals have been pushed into the background. As a consequence, we observe a loss of narrative in the elaboration of clinical histories, failure to listen actively to patient and family demands, and loss of vocation and engagement of professionals, associated with lack of social recognition. It is time, therefore, to reflect upon whether it is necessary to bring about a humanisation of medical care and improve the relationship between patients, relatives and healthcare professionals.

The term "humanise" could be seen as controversial. How can such an intrinsic aspect of the healthcare profession be the subject of debate? We do not intend to call into question the level of humanity shown by professionals. The real objective is to achieve greater closeness, understanding, emotional awareness and affection, increasing our ability to self-criticise and persevering our constant desire to improve. The recovery of the commitment to service and delivery, which originally fuelled our aspiration to be part of the healthcare profession, constitutes both a challenge and a necessity.

The act of humanising takes places from the inside outwards. It is an important personal compromise to improve our health system, relationships and personal environment daily. Our health system will be able to consider itself humanised when it places itself at the service of all those who comprise it: patients, relatives and healthcare professionals at all levels.

Humanising means to us to become aware of oneself in a complex and multidimensional process that goes from politics and policies to culture, the healthcare organization, the training of healthcare professionals, the development of care plans and so on. In the healthcare world, humanising means to put the human being at the centre of every effort done to promote and protect health, cure diseases or provide the best care in the process of death as a part of life. It also means to contribute to create an environment that ensures a healthy and harmonious life on all levels: physical, mental and spiritual. Using the word "humanisation", we take ill people out of their passive status and encourage healthcare professionals to do an excellent job for their patients.

Integrated care requires subjectivity, sensitivity and ethics. It needs large measures of communication and people skills: active listening, respect, empathy and compassion represent a basic toolkit. These teaching resources are essential to promote and improve training in humanisation.

Following this concept, ICUs around the world have promoted innovate initiatives, although with no connection between them: designing more flexible family visiting hours, planning measures to improve the well-being of patients and their families, researching their degree of satisfaction, or making protocols to ensure appropriate end care of life are just some of the proposals. But they are isolated measures.

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Table 1 Priority programmes and areas of interventions

Research areas of the Humanising Intensive Care International Research Project
Open-door policy in ICU: flexible schedules adapted to every single patient and family [6]
Communication: improving information and relationship with patients, families and among professionals [7]
Well-being of the patient, including listening to the views of patients and family in the ICU: retrieve the clinical history [8, 9]
Presence and participation of relatives in intensive care [10]
Care for the healthcare professional: prevention and management of burn-out syndrome [11], and skills training for healthcare providers: resilience, teamwork, counselling, empathy, active listening, compassion, breaking bad news and accompanying in grief
Prevention, management and monitoring of post-intensive care syndrome [12]
Humanised infrastructure: architectural and design improvements [13, 14]
Management of end-of-life situations: "death code", limiting life support, palliative care in ICU [15]

The objective of the present article is not to expose a review of "ICU humanising measures" (family navigators, spiritual support, family participation in interdisciplinary team rounds, family and patient education programs, ICU diaries, sleep area for families). Our aim is to share a project in our environment that combines all of the suggested initiatives. It is a comprehensive and strategic plan of quality improvement for ICU humanisation that affects and engages patients, families and professionals (and also to health providers) in the search for shared benefits.

This story begins in February 2014, when the Humanising Intensive Care Research Project ("Proyecto HU-CI") was born [4]. This is an international movement to change the actual paradigm of "patient-centred care" to "people-centred care" (which includes not only patients but also families and professionals) to make ICUs around the world more kind and human environments. And we developed a free method to achieve a humanised ICU in every part of the world.

In September 2015, the Ministry of Health of the Community of Madrid requested that Proyecto HU-CI realise the Humanisation Plan of Intensive Care Units, within the Humanisation Plan of the Health Care System of the Community [5]. A technical and multidisciplinary committee was created, made up of healthcare professionals skilled in humanisation in critical care as well as patients and independent experts. The committee was formed with the objective of elaborating a project directed towards the "humanisation of intensive care" and with the goal of offering a methodology for ICU to be able to strive for a level of excellence in healthcare that is humanised and people-focused, making these units into more pleasant places for patients, relatives and professionals.

The committee established eight strategic approaches to work on. Each approach was taken on by a working group made up of committee members with the help of any independent experts thought necessary by each commission.

The documents elaborated by the commissions were debated and agreed upon in working meetings by the technical group in order to draw up a first version of the document. This version was subsequently discussed with representatives from all strata of ICU in Madrid, in order to create a flexible proposal of prioritisation and implementation of measures, according to the particular needs of every ICU in conjunction with the Ministry of Health (the full document in English can be downloaded by clicking here: http://humanizandoloscuidadosintensivos.com/wp-content/uploads/2016/12/ICU-Humanisation-Plan_EN.pdf).

Table 1 summarises the programmes and areas of intervention that were prioritised.

Having said this, we think the next challenge in our ICU will be improving the best and excellent care for everybody: patients, families and professionals. Welcome to the (r)evolution of emotions.

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Compliance with ethical standards

Conflicts of interest

The authors have no conflicts of interest.We are indebted to Kim Gajraj for helping us with the English translation. The Permondo project provides free translations for non-profit organisations.

Received: 26 October 2016 Accepted: 28 January 2017

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9.6. Humanisation in intensive care units

Introduction

In the past 30 years, there have been spectacular scientific and technological developments in Intensive Care Units (ICUs). This has been the cause of a notable increase in survival rates for patients admitted to these units. In Spain, the Spanish Society of Critical and Intensive Medicine and Coronary Care Units (SEMICYUC (acronym in Spanish)) has estimated the survival rate at over 90%. The standard of training, and the performance, of healthcare professionals dedicated to the critically ill patient, is excellent.

Having said this, the intensive use of technology has meant that the human and emotional needs of patients, families and professionals have been pushed into the background. As a consequence, we observe a loss of narrative in the elaboration of clinical histories, failure to listen actively to patient and family demands, and the questioning of healthcare as a profession for reasons of stress. This stress originates from the lack of stable working conditions caused by cuts in both human and material resources, which are partly due to the economic crisis and partly to lack of social recognition. It is time, therefore, to reflect upon whether it is necessary to bring about a re-humanisation of medical care and improve the relationship between patients, relatives and healthcare professionals.

The term “humanise” could be seen as controversial. Many people may be surprised that such an intrinsic aspect of the healthcare profession should be the object of debate. We do not intend to call into question the level of humanity shown by professionals. The real objective is to achieve greater closeness, understanding, emotional awareness and affection, increasing our ability to self-criticise and persevering in our constant desire to improve. The recovery of the commitment to service and delivery, which originally fuelled our aspiration to be part of the healthcare profession, constitutes both a challenge and a necessity of great magnitude and general concern. The act of humanising takes places from the inside outwards. It is an important personal commitment to improve daily life, our relationships, and our personal environment. To stop and think, and see what each person can contribute to the system, is to convert the process of change into one where action is fundamentally important. Our health system will be able to consider itself humanised when it places itself at the service of all those who compose it: patients, relatives and healthcare professionals at all levels.

Integrated care requires subjectivity, sensitivity and ethics. It needs large measures of communication and people skills: active listening, respect, empathy and compassion, a basic toolkit that, to a greater or lesser degree, did not feature on the curriculum of current professionals. These teaching resources are essential to promote and improve training in humanisation. Conscious of this idea, the Region of Madrid’s own Intensive Medicine Services (SMI (acronym in Spanish)) has introduced initiatives for making visiting hours more flexible, measures to improve wellbeing for patients and families, research into levels of satisfaction and protocols to ensure the appropriateness of end-of-life care.

In addition, the Ministry of Health has prioritised the humanisation of care in the Region of Madrid as one of the strategic approaches for the current term in office.

In September 2015, a Technical Committee was created, made up of healthcare professionals (intensive care doctors, nurses, paediatricians, physiotherapists) who are committed to humanisation activities, including representatives from the Society of Intensive Medicine of the Region of Madrid (SOMIAMA (acronym in Spanish)), as well as patients and independent experts. The Committee was formed with the objective of elaborating a project directed towards the “humanisation of intensive care” and with the goal of offering a methodology for ICUs in the Region of Madrid to be able to strive for a level of excellence in healthcare that is humanised and people-focused, making these units into more pleasant places for patients, relatives and professionals. The Committee is backed by independent experts, members of the international research project HU-CI, and has the technical support of the General Management of Coordination of Citizen Care and Humanisation of Healthcare and of Planning, Research and Training, which is part of the Ministry of Health.

The Committee established eight strategic approaches to work on. Each approach was taken on by a working group made up of Committee members with the help of any independent experts thought necessary by each commission.

The documents elaborated by the commissions were debated and agreed upon in working meetings by the Technical Group in order to draw up a first version of the document. This version was subsequently discussed with representatives from all strata of ICUs in Madrid, in order to create a proposal of prioritisation and implementation of measures, in conjunction with the Ministry of Health. The following programmes and areas of intervention were prioritised:

1. Open-door policy in ICUs
2. Communication
3. Wellbeing of the patient
4. Presence and participation of relatives in intensive care
5. Care for the healthcare professional
6. Prevention, management and monitoring of post-intensive care syndrome
7. Humanised infrastructure
8. End-of-life care

Programme 1: Open-door policy in ICUs

Justification

Historically, the policy on family members visiting patients admitted to Intensive Medicine Services (SMI (acronym in Spanish) or to ICUs has followed a restrictive model. It was considered that such an approach worked in the best interest of patient care during his/her illness, while at the same time facilitating work carried out by healthcare professionals.

There is now sufficient evidence to argue for and promote a change in this policy. The experience of paediatric and neonatal ICUs (PICUs and NICUs respectively), where parents and regular caregivers are considered fundamental to patient care, justifies a critical lens on this topic. It is known that the introduction of flexible hours or the establishment of an “open-doors” policy in critical care units (Annexe 1) generates benefits for patients, relatives and professionals.

The barriers to introducing more flexible hours stem from deeply rooted customs across all strata and a lack of critical reflection on the shortcomings of these customs. The solution must come from awareness and the creation of new attitudes and habits, based on the successful experiences of other Units, that allow a liberalist modification of visiting policies. This change must be adapted to the idiosyncrasies of each Unit.

Objectives

General Objective

- Develop strategies to make visiting hours more flexible in SMIs

Specific Objectives

1. Make professionals aware of the benefits for patients, family members, professionals and SMIs of implementing the ICU open-door policy.
2. Facilitate ICUs’ accessibility to relatives of patients
3. Promote contact and relationships between patients and their families during their stay in ICU.

ACTIVITIES AND EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 1: Make professionals aware of the benefits for patients, relatives, professionals and SMIs of implementing the ICU open-doors policy					
Knowledge-sharing within each SMI and among their professionals of the experience of other Units where the “ICU open-door policy has been implemented	SMI training plan	Completion of knowledge-sharing activity based on experiences of the ICU open-door policy	At least 1 activity	Yearly	SMI Service Chief/ SMI professional responsible for this approach
	Individual record	% of ICU professionals to have received the information	--		
Information/working sessions with SMI professionals to analyse barriers and solutions to the implementation of the model	SMI training plan	Completion of the working session to analyse the issue	At least 1 session	Yearly	Person responsible for Continuing Education in the SMI/SMI professional responsible for this approach
	Individual record	% of ICU professionals who attended the sessions	--		
Specific objective 2: Facilitate ICUs’ accessibility to patients’ relatives					
Elaboration of an appropriate healthcare protocol of flexible hours or open doors for each centre. To be considered in the protocol are: - The need to value the opinion of healthcare professionals about the advantages and drawbacks related to increasing visiting hours and to the presence of family members during techniques and procedures. - The completion of training activities for healthcare staff where the beneficial effects of the change are made known - A document will be written outlining the consensus reached regarding policy on visiting and accompaniment	Specific document	Production of a document	Yes	Yearly	SMI Service Chief/ SMI professional responsible for this approach
		% of ICUs who have drawn up an open-doors healthcare protocol	>70-80% at the end of 2019		General Management of Healthcare Coordination/ Hospital Management

Specific objective 3: Promote contact between patients and their families during their stay in ICU

Removal of unnecessary barriers (footwear, gowns, gloves and masks) except in special cases where these are required	SMI working plan	Systematic non-use of footwear, gloves, gowns and masks	No (excludes special cases where they are required: individual discretion needed)	Yearly	SMI professional responsible for this approach/ Nursing Supervisor

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Justification

Programme 2: Communication

Communication is the key element in human relationships and implies not only the exchange of information but also the enrichment of those involved. In healthcare, despite advancements in new technologies that appear to replace human intervention, it is necessary to encourage and improve effective communication among all participants: professionals, patients and families.

In SMIs, teamwork among different professionals is indispensable and requires, among other elements, effective (complete, clear, timely, concise) communication in order to avoid errors and create a consensus in terms of treatment and patient care. Times of information transfer in ICUs (shift changes, guard changes, relocation of patients to other units or services etc.), where it is not only information but also responsibility that is exchanged, are frequent and crucial, since it is at these times that relevant information risks being omitted or misinterpreted.

On the other hand, conflicts among the professionals who make up ICUs are frequent and are on many occasions caused by ineffective communication. These conflicts threaten the concept of teamwork, have a direct influence on the wellbeing of the patient and his/her family, create fatigue and professional disillusionment, and generate greater waste of healthcare budgets.

Healthcare information is one of the principal needs expressed by patients and family members in ICUs, and its absence or ineffective provision underlies many of the complaints filed. Although the patient holds legal right to the information, for critical patients who do not have legal capacity, this right transfers to the relatives. Giving adequate information in such times of great emotional strain requires strong communication skills, for which the majority of professionals have not received specific training. The right communication with patients and family members will help to create a climate of trust and respect, and promote joint decision-making.

Although general models do exist, specific policies on how to carry out the informative process in the ICU have not been defined. In our country these policies are rigid: 80% of units give out information once per day and information is given at the request of families in only 5% of units. Information-sharing among doctors and nurses is also exceptionally low (3,1%). It is important to point out that nurse participation in information-sharing is, in general, insufficient and poorly defined, despite the fundamental role that nurses carry out in critical patient care and that of their families.

Of all the events that take place in the ICU, one of those perceived to be most stressful by patients is the inability to speak, which causes them to experience panic, insecurity, sleep disruptions and elevated levels of stress. Many of the patients who pass away in the ICU do so without being able to communicate their needs and wants at the end of their life, or give messages to their loved ones. This means it is paramount that attempts to communicate with patients who have limited communication capacity are improved, promoting the use of augmentative communication systems (which complement oral language when it is not sufficient for effective communication).

Objectives

General Objective

➪ Encourage and improve effective communication between professionals, patients and families of the SMIs

Specific Objectives

1. Develop tools that ensure the correct transfer of relevant information on a patient among all team members and that improve teamwork.
2. Facilitate aspects that help to establish appropriate and empathetic communication with relatives on behalf of all team members, in order to reach a satisfactorily helpful relationship, as well as to facilitate accessibility of information.
3. Facilitate the giving out of information to patients and promote the use of augmentative and/or alternative communication systems where necessary.

ACTIVITIES AND EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 1: Develop tools that ensure the correct transfer of relevant information on a patient among all team members, and that improve teamwork					
Implementation of a structured protocol for information transfer during shift changes/ guard changes/ discharge	Specific document	Existence of a protocol for information transfer	Yes	Yearly	SMI Service Chief/ Nursing supervisor
	Specific record	No. of regulated incidences of information transfer that adhere to the protocol/No od routine information transfers per year	SEMICYUC indicator (90%)		
Completion of daily ward-rounds by multidisciplinary teams	SMI working plan. Specific record	No. of days on which multidisciplinary ward-rounds take place per 365 days/year	SEMICYUC indicator (80%)	Yearly	Service chief/ Nursing supervisor
Incorporation of specific tools to improve effective communication: daily goals/checklists/AASTRE (Random Security Analysis in Real Time)/ SBAR tool	SIM working plan	Existence of specific tools to improve effective communication	At least 1 per year	Yearly	Service chief/ Nursing supervisor
Completion of training activities for ICU professionals in team building and effective communication (CRM, clinical simulation)	Continuing education activity record	Completion of training activities	At least one session	Yearly	Hospital management/ Person responsible for continuing education
		% if ICU professionals to have completed at least 1 training activity	>80% at end of 2019		
Specific objective 2: Facilitate aspects that help establish appropriate and empathetic communication with relatives on behalf of all team members, in order to reach a satisfactorily helpful relationship, and facilitate accessibility of information					
Existence of appropriate and sufficient spaces for providing information to fmailies	Hospital management memorandum	Existence of appropriate and sufficient spaces for providing information to families	Yes	--	Hospital management/ Director
Implementation of doctor-nurse group information sharing process to patients and relatives	Specific document/ SMI working plan	Existence of a written procedure	Yes	Yearly	Service chief/ Nursing supervisor
	Specific record	No. of incidences of doctor-nurse group information sharing/365 days/Year	SEMICYUC indicator		

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Completion of training activities in communication techniques and giving bad news/ simulation workshops	Continuing education activity record	Completion of activity training	At least 1/Year	Yearly	Hospital management/ Person responsible for continuing education
		% of professionals to have completed at least 1 training activity	>80% at end of 2019		
Consideration of different strategies: making hours more flexible, increasing frequency of information sharing, phone calls in select cases	SMI working plan	Completion of activities that promote information sharing to relatives according to the unit's protocol	At least 1/Year	Yearly	Service chief

Specific objective 3: Facilitate the giving out of information to patients and promote the use of augmentative and/or alternative communication systems where necessary

Availability of augmentative/alternative non-verbal communication systems (alphabetic charts, singing codes, images or structured questions with yes/no answers), with the potential to include new technologies such as communication by eye contact	Hospital management memorandum	Augmentative/alternative communication systems are available	At least one	Yearly	Hospital management/ Director
	Specific document	There exists a procedure for communication with patients with language difficulties	Yes		Service Chief/ Professional responsible for this approach
	Specific record	No. of patients with language difficulties with whom CAA systems have been used/ No. of patients with language difficulties/Year	Yes		

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Programme 3: Patient wellbeing

Justification

The goal of attending to a patient's wellbeing should nowadays be as crucial as attending to his/her treatment, and is even more important when the latter is not possible.

Illness itself is upsetting and painful for patients, and on top of this even further upset is caused by the interventions that we carry out on them, which are often painful: procedures, implantation of devices, immobility, etc. As well as physical pain, we can neither ignore nor underestimate the psychological suffering. Any illness brings about uncertainty, fear, anxiety…, which can bring about more suffering that the physical pain itself.

All these aspects increase considerably in magnitude among critical patients who require admission to ICU. In ICUs it is probable that the psychological element of their suffering becomes more acute, since there are additional disturbing aspects for the patient such as loneliness on being separated from family members; vulnerability; the dependency, in many cases, on life support machines; total loss of autonomy and mobility; the inability, on occasions, to communicate in any great quantity; loss of identity; lack of communication on what is happening to him/her, and on his/her diagnosis, etc.

The work conditions in our ICUs are often not conducive to managing of these aspects optimally, although significant steps have been made to tackle the issue in recent years. Pain assessment and control, dynamic sedation appropriate to the patient's condition and the prevention and management of acute delirium are key elements to improving patients' comfort, as well as attention to other upsetting physical factors such as lack of sleep at night, noise, thirst, cold and heat.

The relief of psychological unease probably requires a change in work methods on behalf of ICU professionals, which is being implemented in a number of units. This change must avoid the assumption that admittance to ICU means separating from family members and from the patient's life in the outside world, and must strive to maintain the patient's autonomy as much as possible and his/her dignity at all times.

Objectives

General objective

⇨ Improve and guarantee patient comfort, not only in the physical, but also the psychological, spiritual and environmental, sense

Specific Objectives

1. Promote measures that avoid or diminish physical discomfort and that favour early recovery of motor function. This includes: pain control, dynamic sedation adjustment, delirium prevention and relief of other painful or bothersome sensations. *(See Annexe II).*
2. Promote actions that lead to reduction in psychological suffering of the patients and attend to spiritual demands.
3. Establish measures that promote patient autonomy and facilitate his/her connection with the outside world
4. Promote measures that facilitate waking-sleeping rhythms and nighttime rest, as well as other environmental wellbeing measures.

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific Objective 1: Physical comfort: Promote measure that avoid or diminish physical discomfort and that favour early recovery of motor function					
Implementation and/or updating of the Analgesia and Sedation Protocol, with monitoring and evaluation of sedation and analgesia.	Specific document	Existence of an up-to-date protocol for sedation and analgesia	Yes	--	Service chief/ Professional responsible for this field
	Hospital management memorandum	% of ICUs with up-to-date protocols for sedation and analgesia	≥80-90%	At end of 2019	General Director of Healthcare Coordination/ Hospital Management
	Specific register (in graph form)	Monitoring of sedation and analgesia (SEMI- CYUC indicators) (1) (2) (3)	Yes	1 Year	Nursing Supervisor
	Hospital management memorandum	% of ICUs with records of scales of pain and delirium	≥95%	At end of 2019	General Director of Healthcare Coordination/ Hospital Management
	Specific register (in graph form)	UCIP: Monitoring of pediatric patients' pain at time of admission and periodically (4)	≥95%	1 Year	Nursing Supervisor

ACTIVITIES AND EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STAN-DARD	REGUL-ARITY	RESPONSIBILITY
Implementation and/or updating of the protocol for prevention and management of acute delirium	Specific document	Existence of a protocol	Yes	--	Service chief/ Professional responsible for this field
	Hospital management memorandum	% of ICU with a protocol for the prevention and management of acute delirium	≥50%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
	Clinical history	Identification of delirium (SEMICYUC indicator) (6)	≥ 95%	Yearly	Service chief/ Professional responsible for this field
Implementation and/or updating of protocol for mechanical restraints	Specific document	Existence of a protocol for mechanical restraints	Yes	--	Service Chief/ Nursing Supervisor
	Hospital management memorandum	% of ICUS to have implemented a protocol for mechanical restraints	≥50%	At end of 2019	General Director of Healthcare Coordination/ Hospital Management
	Specific records	Monitoring of the use of containment measures (SEMICYUC indicator) (7)	≥95%	Yearly	Nursing Supervisor
Implementation of early physiotherapy for critical patients (motor and/or respiratory), linked to early mobilisation and sitting and controlled posture changes	Clinical history	Completion of early physiotherapy among patients indicated (within first 48 hrs of admission)	≥80%	Yearly	Professional responsible for this approach
	Hospital management memorandum	Existence of a physiotherapist assigned to the SMI (shared with other services)	Yes	--	General director of Healthcare Coordination/ Hospital Management
		% of ICU to have been assigned a physiotherapist (shared with other services)	≥60%	At end of 2019	
Systematic assessment of sensations of discomfort in the patient (thirst, cold, heat, etc.) and relief of these as far as possible	Clinical history	Systematic assessment of sensations of discomfort in the patient	≥80%	Yearly	Service chief/ Nursing Supervisor
Evaluation at time of admission and periodically of pain in paediatric patients	Clinical history	Pain assessment in the paediatric patient	100%	Yearly	Service Chief/Nursing Supervisor
Specific objective 2: Psychological and spiritual comfort: Promote actions that lead to reduction in the patient's psychological suffering and attend to spiritual demands					
Facilitate means of entertainment for patients with the necessary regulation of use (reading, multimedia devices, radio, TV, etc.)	Specific document	Protocol for use and regulation of means of entertainment	Yes	--	Service chief/ Professional responsible for this field
	Hospital management memorandum	% of ICUs with regulation and promotion of means of entertainment	≥50%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Favour spiritual/religious attention or care if the patient or family members request it	Hospital management memorandum	Spiritual/religious attention available at the request of patients or family members	100%	One year	General director of Healthcare Coordination/ Hospital Management

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 3: Patient autonomy: Establish measures that promote patient autonomy and facilitate his/her connection to the outside world					
Promotion of supervised walks and use of the WC in select cases	Clinical history	% of patients permitted to walk around in relation to the no. of patients who would be clinically able to do so	≥50%	At end of 2019	Service chief/ Supervisory nurse
Regulation of the use of mobile phones (promote contact with family members and reduce sense of isolation)	Specific document	Protocol for the use and regulation of mobile phones for patients	Yes	--	Service chief/ Professional responsible for this field
	Hospital management memorandum	% of ICUs with regulation of mobile phones	70-80%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Specific objective 4: Environmental comfort: Promote measures that facilitate waking-sleeping rhythms and night-time rest, as well as other environmental wellbeing measures					
Control of surrounding noise levels: maintain an environment with the least noise possible to improve the comfort and the recovery of patients, and reduce delirium and posttraumatic stress: - Measuring of noise levels: fitting of decibel meters in all units with warning lights when the established limits are exceeded - Adjustment of alarm, telephone and/or intercom tones during the night	Hospital management memorandum	Installation of devices to measure noise intensity	Yes	--	Service chief/ Nursing Supervisor
		% of ICUs to have installed devices to measure noise intensity	≥50%	At end of 2019	Supplies department
Lighting control: - Adjustment of night-time lighting, with the possibility of reducing general light intensity at night in communal areas and individualise it in each bay - Favour natural light during the day (bays with natural light)	Hospital management memorandum	Existence of mechanisms to control lighting levels individually	Yes	--	General director of Healthcare Coordination/ Hospital Management
		% of ICUs with mechanisms to control lighting levels individually in bays and communal areas	≥50%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Reduction of activities or interventions performed on patients during resting periods	Specific document	Protocol for reduction of activities or interventions performed on patients during resting periods	Yes	--	Service chief/ Nursing Supervisor
Promotion of music therapy: beneficial effect of music on critical patients, reducing anxiety and physiological response, with reduction in heart and breathing rates and systolic arterial tension. Relaxing music is recommended	Hospital management memorandum	Implementation of music therapy	Yes	--	Service chief/ Nursing Supervisor/ Supplies department
		% of ICUs to have implemented music therapy	≥50%	At end of 2019	General director of Healthcare Coordination/ Hospital Management

SEMICYUC AND OTHER INDICATORS		
INDICATOR	FORMULA	STANDARD
(1) **Appropriate sedation** (result) maintenance of successive results of scales of sedation at minimum 80% within the prescribed range for this patient	No. of patients with mechanical ventilation (MV) and appropriate sedation x 100 No. of patients with MV and sedation in the SMI	85%
(2) **Monitoring of sedation** (process) evaluation of level of sedation using one of the valid scales every 6h, or if there is a variation in clinical state	No of periods of 6 hours with monitored sedation x 100 No of periods of 6 hours with MV and continuous sedation (days of MV and continuous sedation x 4)	90%
(3) **Management of analgesia in the un-sedated patient** (process) Monitoring according to protocol: at least one measurement must be taken every four hours (or more frequently where pain is involved), respecting sleep using a valid pain scale (E.g. Visual Analogue Scale VAS, Verbal Numerical Rating Scale VNRS). It will not be permitted to perform more than 3 VAS or VNRS measures per 24 hours	No. of patients monitored according to protocol x 100 No. of patients eligible for analgesia, without sedation	100%
(4) **Pain evaluation for patients on admission to ICU** Includes: all ICU patients < 18 years of age	No. of patients whose pain is evaluated at time of admission to ICU x 100 Total ICU admissions	
(5) **Periodic pain evaluation for ICU patients**	No. of patients whose pain is evaluated minimum every 6 hours x 100 Total number of ICU patients	
(6) **Identification of delirium** (process) Daily assessment using the Confusion Assessment Method-ICU (CAM-ICU) or Intensive Care Delirium Screening Checklist (ICDSC)	No. of patients with MV and assessment of the presence of delirium x 100 No. of patients with MV for more than 48 hours	90%
(7) **Use of containment measures** (process): The prescription can only be made by physicians, though may be initiated by nurses. The protocol must consider: 1. Definition and types of containment. 2. Indication of situation in which containment should be used. 3. Tracking of patients put in containment: when and where. 4. Documentation in the clinical history	No. of containments adjusted to the protocol x 100 No. of containments carried out	100%

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Programme 4: Presence and participation of relatives in intensive care

Justification

70% of relatives of patients admitted to ICU show signs of anxiety and up to 35% show signs of depression, on top of situations of stress in the acute traumatic moment and posttraumatic period.

Family members wish to participate in caring for the patient. If clinical conditions permit, relatives who are willing to do so might collaborate in certain aspects (personal hygiene, administering food or rehabilitation), always under the training and supervision of the healthcare professionals. Giving the family the opportunity to contribute to the patient's recovery can have positive effects on the patient, on the relatives and on the professional, by reducing emotional stress and facilitating closeness and communication among the parties involved.

Recommendations exist concerning how to integrate family participation into patient care. It involves the implementation of the patient-family unit and its management on a universal scale.

The development of research concerning family presence during procedures in SMIs began in the 1980s. In general, intensive care professionals do not consider the presence of family members during procedures to be appropriate, referring to the possibility of causing psychological trauma and anxiety to the family, the interference in the procedures, the distraction involved and the possible impact on the healthcare team. On the other hand, surveys show that the majority of patients and family members would like to remain with their loved ones during these moments. Although the studies are not conclusive, the presence of family members has not been linked to negative consequences. It is, however, accompanied by changes in attitude such as a greater concern for professionals on matters of privacy, dignity and pain management during procedures where family members are present, as well as greater satisfaction of family members and a greater degree of acceptance of the situation regarding the mourning process.

Objectives

General Objective

⇨ Integrate families into the patient care process in ICUs

Specific Objectives

1. Offer the family the opportunity to participate in the basic care of the patient and in certain prodcures
2. Detect and support the emotional and psychological needs of the families

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 1: Offer the family the opportunity to participate in the basic care of the patient and in certain prodcures					
Elaboration of a procedure that considers family participation in the patient's basic care (hygiene, food, rehabilitation)	Specific document	Existence of a questionnaire for interviewing family members of long-stay patients (> 7 days) that records needs and generates action plan (check list)	Yes	--	Service chief/ Nursing supervisor
	Hospital management memorandum	% of ICUs to have elaborated an interview questionnaire	70-80%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Creation of the role of primary carer for long-stay patients (Annexe III)	SMI working plan	Existence of primary carer(s)	Yes	--	Service chief/ Nursing supervisor
	Hospital management memorandum	% of ICUs with a primary carer	70-80%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Training for family members (School for ICU Families-Annexe IV)	Specific document	Existence of a protocol on the creation of a School for Families	Yes	--	Service chief/ Supervisory nurse
	Hospital management memorandum	% of ICUs to have a School for Families	70-80%	At end of 2019	General director of Healthcare Coordination/ Hospital Management

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STAND-ARD	REGULARITY	RESPONSIBILITY
Implementation of instruments (questionnaire) for offering family members the opportunity to accompany patients for certain procedures	Specific document	Questionnaire for the possibility of accompanying on procedures	Yes	--	Nursing supervisor
	Specific record	No. of patients whose families were given the questionnaire per no of patients admitted to ICU/year	--	Yearly	
Specific objective 2: Detect and supprt the emotional and psychological needs of the families					
Use of tools to identify the emotional and psychological needs of the carers	Specific record	No. of carers to whom tools have been applied to identify emotional and psychological needs per no. of carers	--	Yearly	Psychologist
Regulation of the use of mobile phones (promote contact with family members and reduce sense of isolation)	Specific document	Existence of protocols for support for carers	Yes		Psychologist
	Hospital management memorandum	% of ICUs to have a protocol for support for carers	>95%	At end of 2019	General director of Healthcare Coordination/ Hospital Management
Availability of psychological support	Hospital management memorandum	Existence of psychological support in the ICU	Yes	--	General director of Healthcare Coordination/ Hospital Management
		% of ICUs with psychological support	>50%	At end of 2019	
Control of surrounding noise levels: maintain an environment with the least noise possible to improve the comfort and the recovery of patients, and reduce delirium and posttraumatic stress: - Measuring of noise levels: fitting of decibel meters in all units with warning lights when the established limits are exceeded Adjustment of alarm, telephone and/or intercom tones during the night	Hospital management memorandum	Installation of devices that measure noise intensity	Yes	--	Service chief/ Nursing supervisor
		% of ICUs to have devices that measure noise intensity installed	≥50%	At end of 2019	Supplies department

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Programme 5: Care for the Healthcare Professional

Justification

As healthcare professionals we experience our work from a profoundly vocational perspective. Our daily commitment to the service and helping of the sick patient requires a great deal of dedication and involvement, which provides enormous personal satisfaction when expectations are fulfilled, quality work is carried out, patients are cured, suffering is avoided, we enjoy well-deserved recognition, etc. When things do not go well, however, the emotional toll is considerable. When this emotional toll goes hand in hand with a neglect of our own health and wellbeing, the "Burnout Syndrome", or nervous breakdown, occurs.

There is general agreement that burnout syndrome is a response to chronic stress at work. It has negative connotations linked to the negative consequences it implies for the individual and the organisation. Among its many conceptualisations, one of those most widely used has been that of Maslach and Jackson which characterises the syndrome by emotional exhaustion or loss of emotional resources needed to deal with one's work; depersonalisation or the development of negative attitudes, or insensitivity and cynicism towards those receiving the service; and lack of personal achievement or tendency to evaluate one's own work in a negative way, with feelings and impressions of low professional self-esteem.

The consequences of the syndrome are broad and important and affect mental health, physical health, quality of life and the effectiveness of the healthcare professional. This situation presents the need to develop prevention and intervention programmes that help to control and alleviate these effects.

There are no studies of any magnitude in the field of intensive care that help us to adequately map the incidence and consequences of the syndrome.

Society and organisations have the moral duty, the ethical imperative and the legal obligation to "care for their carers", who are exposed to significant physical, emotional and psychological burdens stemming from their effort and dedication. To fulfil this obligation, a series of basic objectives and priorities must be defined that direct us towards the execution of preventative and therapeutic interventions.

Objectives

General objective

⇨ Map the impact of professional burnout syndrome in SMIs, encourage its detection and reduce the negative consequences on healthcare professionals, on patients, and on their institutions.

Specific objectives

1. Improve knowledge on professional burnout syndrome and work to make it more visible
2. Evaluate the impact of professional burnout syndrome in SMIs
3. Analyse the factors related to professional burnout syndrome, such as job satisfaction, anxiety, depression and engagement in the work.
4. Reduce professional burnout syndrome and improve the degree of job satisfaction

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 1: Improve knowledge on professional burnout syndrome and work to make it more visible					
Completion of specific training on professional burnout syndrome	Training activity record	At least 1/year: group 1 hospitals. At least 2/year: group 2 hospitals At least 3/year: group 3 hospitals	Yearly	Yearly	Hospital management/ Person responsible for continuing education
		No. of SMI professionals who complete at least 1 training activity on professional burnout per no. of SMI professionals	>80% at end of 2019		
Printing of a manual on professional burnout in intensive care	Specific document	Elaboration of manual on professional burnout	Yes	Periodic revision	Hospital management/ Humanisation ICU ad hoc group
Elaboration of a manifesto or declaration for the communities involved where the importance of caring for the healthcare professional is recognised	Specific document	Elaboration of the manifesto and its diffusion	Yes	--	Humanisation ICU working group

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STAND-ARD	REGUL-ARITY	RESPONSIBILITY
Specific objective 2: Evaluate the impact of professional burnout syndrome in SMIs					
Completion of a multicentre study on the prevalence of professional burnout syndrome, its precursors, the consequences for health and quality of life, and the resources that ICU professionals have available to cope with the condition. To this end a survey will be designed, in which questionnaires can be used on an *ad hoc* basis	SEMICYUC/CEEIUC multicentre study	Completion of the multicentre study	Yes	Twice Yearly	*Ad hoc* Humanisation-ICU group
Specific objective 3: Analyse the factors related to professional burnout syndrome, such as job satisfaction, anxiety, depression and engagement in the work					
Completion of a multicentre study to know the degree of job satisfaction, anxiety, depression and engagement in the work	Multicentre study	Completion of the multicentre study. Index of job satisfaction. % of depression % of anxiety	Yes	At least one yearly observation	*Ad hoc* Humanisation-ICU group
Specific objective 4: Reduce professional burnout syndrome and improve the degree of job satisfaction					
Implementation of specific institutional strategies of support for professionals	Hospital management memorandum	No of ICUs with a programme implemented for the prevention, detection and treatment of professional burnout per total number of ICUs	>50%	At end of 2019	General director of healthcare coordination/ Hospital management
Designing of a training programme which deals with different aspects related to professional burnout in order to acquire competences and skills for dealing with stress and conflictive situations (resilience, positive personality, assertiveness, problem solving, effective time management)	Training activity record	No of ICUs that have included in their continuing education programme the completion of a course that deals with different aspects related to professional burnout	>80%	At end of 2019	Hospital management/ Person responsible for continuing education
Designing of a training programme that deals with different aspects related to professional burnout in order to acquire competences and skills for dealing with stress and conflictive situations (resilience, positive personality, assertiveness, problem solving, effective time management). Explore organisational changes that reduce the impact of professional burnout: Reordering of the job, new forms of organisation with a reduction in days on call, less healthcare workload (more work related to teaching, training and research), rotation of job position, improvement of professional abilities. Increase in the degree of participation and opinion of professionals in the cultural management of the organisation, in its general management and its objectives. Measures to improve the institution's work environment with the direct participation of professionals: architectural designs, steps to improve ergonomics, areas optimised for rest and work, meeting rooms. Reduction in healthcare workloads for senior personnel, in tandem with increasing their teaching, training, organisation, management, coordination, integration and research responsibilities, with the support of junior personnel	Specific record	Creation of a platform for dialogue between SOMIAMA and the CM where aspects related to professional burnout can be dealt with	At least 1 meeting per year	Yearly	General director of healthcare
Periodic evaluation of burnout syndrome in every SMI	Evaluation report	% of professionals with burnout syndrome compared to previous measurement No of ICU professionals with professional burnout syndrome per total no of ICU professionals	2018< 2016	Year or twice yearly	Hospital management/ Service chief

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Programme 6: Prevention, management and monitoring of post-intensive care syndrome

Justification

The traditional goal of Intensive Medicine has been to reduce mortality in the short term without special consideration for extra-ICU factors once the patient is discharged from the SMI.

Currently – and within the concept of the "expanded" ICU – we present other questions:

- What does it mean to survive an SMI for patients and their families?
- The patients who survive: do they recover well in the long term or do they present with pathologies derived from their critical situation?
- Can our intra-ICU attitude change if we understand better our patients' recovery process post-discharge?

Post-Intensive Care Syndrome (PICS) is a concept defined only recently that affects no small number of patients (30 to 50%), and also affects family members. It involves a broad group of health problems that remain after the critical illness.

These problems begin to emerge when the patient is in ICU and they can persist after he/she has returned home. More than 50% of patients return to work during the first year, but many are not able to do so and need help with their daily activities after having been discharged.

Physical symptoms (such as persistent pain, weakness acquired in ICU, malnutrition, pressure ulcers, sleep alterations, the need to use devices), Neuropsychological symptoms (cognitive impairments, such as alterations in memory, attention, speed of mental processing) or emotional problems (appearance of mental problems such as anxiety, depression or post-traumatic stress) can all arise. These problems also affect the patients' families, since they can cause social problems.

In fact, families are fundamental in minimising PICS by participating in the patient's care, helping him/her to remain focused and reducing stress for both parties.

Critical illness produces a family crisis, and these feelings of worry (decision-making, the evolution of the illness) and confusion can lead family members to neglect their own health. For this reason, the healthcare team should also support the relevant family members.

And the management of PICS requires a multidisciplinary team aside from ICU professionals: specialists in rehabilitation and physiotherapy, nurses, psychologists, psychiatrists, occupational therapists, speech therapists, all of whom should be coordinated and in close relationship with each other, with important attention to ensure continued assistance in the ICU, the conventional hospital bed, and the home.

Objectives

General objectives

- Generate general knowledge and understanding of the importance of PICS
- Implement the corresponding interventions for its prevention, detection and management

Specific objectives

1. Prevent and detect the appearance of PICS early.
2. Improve the quality of life of patients identified to be pre-discharge from the SMI while they are being monitored on the ward and/or when they are discharged and sent home.
3. Assess and implement possible organisational measures appropriate to the situation in each hospital.

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Specific objective 1: Prevent and detect the appearance of PCIS early					
Application of the ABCDEF package of measures during stay in the ICU	Clinical history	% of long-stay patients (>7d) to whom the ABCDEF package of measures has been applied	>95%	Yearly	Team responsible for each patient's treatment
	Hospital management memorandum	% of ICUs where the ABCDEF package of measures has been applied	50%	End of 2019	General director of healthcare coordination/ Hospital management
Elaboration of a ICU without Delirium Protocol (Annexe VI)	Specific document	Elaboration of an ICU without Delirium Protocol	Yes	--	
	Hospital management memorandum	% of ICUs with an ICU without Delirium Protocol	50%	End of 2019	General director of healthcare coordination/ Hospital management

Implementation of prevention and treatment measures of neuromuscular disease: reduction of the duration of mechanical ventilation, deep sedation and neuromuscular blocking; use of anti-varus orthotics and early movement (See programme 3: Wellbeing of the patient	Specific document	Elaboration of a protocol to prevent and treat neuromuscular disease	Yes	--	Service chief and Nursing supervisor
	Hospital management memorandum	% of ICUs with a protocol to prevent and treat neuromuscular disease	>95%	End of 2019	General director of healthcare coordination/ Hospital management

Specific objective 2: Improve the quality of life of patients identified to be pre-discharge from the SMI while they are being monitored on the ward and/or when they are discharged and sent home.

Completion of a physical and psychological functional assessment	Hospital management memorandum	Existence of a rehabilitation team dedicated to the SMI, and a psychologist	Yes	--	General director of healthcare coordination/ Hospital management
		% of ICUs with a rehabilitation team	60%	At end of 2019	
		% of ICUs with psychologists dedicated to the SMI	50%	At end of 2019	
Make protocols for specific conduct in monitoring these critical patients during their stay on the ward	Specific document	Creation and application of a checklist for monitoring on the ward	Yes	--	Team responsible for each patient's treatment
	Hospital management memorandum	% of ICU with said checklist	>70%	End of 2019	General director of healthcare coordination/ Hospital management

Specific objective 3: Assess and implement possible organisational measures appropriate to the situation in each hospital

Creation of a specific follow-up consultation once they have been discharged (Annexe VII)	Clinical history	% of patients with PICS checked two months after discharge	>75%	Yearly	Service chief or professional responsible for this approach
	Hospital management memorandum	% of ICUs with follow-up consultations	>50%	At end of 2019	General director of healthcare coordination/ Hospital management
Elaboration of a multidisciplinary care plan for the patient with PCIS	Specific document	Existence of a multidisciplinary care plan for the patient with PCIS	Yes	--	Service chief or professional responsible for this approach
	Clinical history	% of patients with PCIS who receive the care plan	>70%	Yearly	Service chief or professional responsible for this approach
	Hospital management memorandum	% of ICUs with care plans	>70%	At end of 2019	General director of healthcare coordination/ Hospital management

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Programme 7: Humanised infrastructure

Justification

According to the Standards and Recommendations of the Ministry of Health, Social Services and Equality, the ICU is defined as "an organization of healthcare professionals that offers multidisciplinary care in a specific space in the hospital, that fulfils a number of functional, structural and organizational requirements, in a manner that guarantees adequate conditions of security, quality and effectiveness to attend to critical patients".

In this way, the physical environment of ICUs must allow the care process to be a healthy one that helps in the improvement of the physical and mental state or patients, professionals and family members. An environment that avoids structural stress and promotes comfort.

There is published evidence on this topic (Evidence Based Design), mainly guides in the United States and Europe, and road maps from some nursing associations. We therefore think that an appropriate design can help reduce medical errors, improve results for patients, such as reduction in average stay, and play a possible role in cost control.

We propose changes in these spaces to make them comfortable and friendly for patients, family members and healthcare personnel. Spaces where technical effectiveness goes hand in hand with quality of care and comfort for all users. Changes that result in their being located appropriately, in their appropriateness to users and workflows, in environmental conditions of lighting, temperature, acoustics, materials and finishing, furniture and decoration. These modifications can have a positive influence on the feelings and sensations of everybody. In short, human spaces for human beings and their families who find themselves in very unique situations. Spaces in harmony with the processes that occur in them, with the maximum possible functionality, keeping in mind all the needs of all the users involved.

Objectives

General objectives

⇨ Promote a structural environment in ICUs that guarantees comfort of patients, families and professionals

⇨ Guarantee the appropriate infrastructure to foster a healthy environment for the improvement of physical and psychological state of patients, family members and professionals.

⇨ Facilitate conversion of physical spaces into human spaces

Specific objectives

1. Ensure the patient's privacy
2. Ensure the patient's environmental comfort
3. Foster communication and focus in the patient
4. Encourage entertainment for the patient
5. Make available spaces in gardens or patios and ensure patient access to them (wheelchairs, beds, etc.)
6. Guarantee the education process for school age patients during their stay in ICU
7. Ensure the comfort and functionality of treatment zones
8. Ensure comfort of staff & in the administration area
9. Ensure comfort in the family and parent areas (PICUs & NICUs)
10. Ensure specific operation in NICUs.

ACTIVITIES AND EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STAND-ARD	REGUL-ARITY	RESPONSIBILITY
Specific objective 1: Ensure the patient's privacy					
Installation of folding screens, curtains and other separating devices that allow for privacy. They must all be washable. See Annexe VII (A.1.1.)	Technical memorandum	Existence of privacy boxes	Yes	--	Hospital management/ Service chief
		% of privacy boxes/ICU	100%	At end of 2019	
Make individual boxes available, preferably with windows and translucent doors. With bed for the mother in the case of NICUs, where possible. See Annexe VIII (A.1.2 and E)	Technical memorandum	Existence of individual boxes	Yes	--	Hospital management/ Service chief
		% of individual boxes/ICU	60%	At end of 2019	
		Existence of neonatal compartments with bed for the mother	Yes	--	
		% of neonatal boxes with bed for the mother	60%	At end of 2019	
Make available boxes with a bathroom or close to shared bathrooms. Or at least ensure a min. level of privacy for physiological functions that require modesty.	Technical memorandum	Existence of compartments with private bathrooms or near to shared bathrooms	Yes	--	Hospital management/ Service chief
		% of compartments with private bathroom or near to shared bathrooms/ICU	60%	At end of 2019	
Specific objective 2: Ensure the patient's environmental comfort					
Availability of environmental light that reaches the patient sufficiently in terms of quantity and quality, where possible. Always with option of darkness. See Annexe VIII (A.2.1.)	Technical memorandum	Existence of boxes with natural light	Yes	--	Hospital management/ Service chief
		% of boxes with natural light/ICU	80%	At end of 2019	
		Existence of boxes without natural light but with adequate lighting	Yes	--	
		% of boxes without natural light but with adequate lighting (blue LED)/ICU	100%	At end of 2019	
Incorporation of appropriate colours for adult patients and pictures for children. Attention must also be paid to ceilings, which are sometimes all the patient sees. See Annexe VIII (A.2.2.)	Technical memorandum	Existence of boxes painted with natural colours and/or pictures	Yes	--	Hospital management/ Service chief
		% of boxes painted with natural colours and/or pictures/ICU	100%	At end of 2019	
		Existence of paediatric boxes with natural or child-oriented pictures	Yes	--	
		% of paediatric boxes with natural or child-oriented pictures/ICU	>95%	At end of 2019	
Installation of appropriate furniture and its correct distribution, to create a functional space, with optimal circulation, avoiding disturbances and unnecessary obstacles	Technical memorandum	Existence of boxes with appropriate and ergonomic furniture	Yes	--	Hospital management/ Service chief
		% of boxes with appropriate and ergonomic furniture/ICU	80%	At end of 2019	
Personalisation of boxes to creation a feeling of 'personalisation of the space' with pictures and images that lend quality to the space and allow the individual personalisation of each patient (family photos, drawings by children or relatives, cards with notes from friends and family, pictures of music groups, football teams, etc.) See Annexe VIII (A.2.3)	Technical memorandum	Existence of personalised boxes	Yes	--	Hospital management/ Service chief
		% of personalised boxes per ICU	80%	At end of 2019	
Autonomous and individualised controls in each box for temperature, humidity and ventilation in accordance with UNE and ISO published rules, where possible. See Annexe VIII (A.5.1.)	Technical memorandum	Existence of boxes with appropriate temperature control	Yes	--	Hospital management/ Maintenance Service
		% of boxes with thermal controls according to UNE and ISO/ICU rules	>95%	At end of 2019	

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Implementation of a lighting control system, since it is paramount that there be enough quality natural light in all patients' rooms. This must be complemented with artificial light. General lighting in the room is of 100 lux. See Annexe VIII (A.5.2.)	Technical memorandum	Existence of boxes with lighting control	Yes	--	Hospital management/ Maintenance Service
		% of boxes with lighting controlled by regulators/ICU	80%	At end of 2019	
Control noise levels at below 40db. The WHO advises a noise level of 30 decibels, 35db in the patients' area, and up to 10db more to permit communication. See Annexe VIII (A.5.3.)	Technical memorandum	Existence of boxes with noise control	Yes	--	Hospital management/ Maintenance Service
		% of boxes with noise control/ICU	50%	At end of 2019	
Specific objective 3: Foster communication and focus in the patient					
Availability of a visual connection with the outside world (window at an appropriate height), in order not to become disoriented and maintain circadian rhythm, where possible	Supplies	Visual connection with the outside	Yes	--	Hospital management/ Maintenance Service
Availability of a calendar and clock visible from the bed	Supplies	Existence of boxes with calendars and clocks	Yes	--	Hospital management/ Nursing supervisor
		% of boxes with calendars and clocks/ICU	100%	At end of 2019	
Use of boards or alphabets and specific applications and systems using visual contact to communicate with patients with invasive mechanical ventilation who cannot talk (see Programme 2: Communication). See Annexe VIII (A.3.2.)	Supplies	Existence of boxes with systems to communicate with the patient	Yes	--	Hospital management/ Nursing supervisor
		% of boxes with systems to communicate with the patient/ICU	100%	At end of 2019	
Installation of an intercom connected to the nursing station	Technical memorandum	Existence of boxes with intercom	Yes	--	Hospital management/ Service chief
		% of boxes with intercom/ICU	80%	At end of 2019	
Specific objective 4: Encourage entertainment for the patient					
Use of reading lights for conscious patients See Annexe VIII (A.4.1.)	Technical memorandum	Existence of boxes with reading lights	Yes	--	Hospital management/ Service chief
		% of boxes with reading lights/ICU	100%	End of 2019	
Availability of a TV receptor, where possible. See Annexe VIII (A.4.2.)	Technical memorandum	Existence of boxes with TV	Yes	--	Hospital management/ Service chief
		% of boxes with TV/ICU	>50%	End of 2019	
Installation of background music, where possible. See Annexe VIII (A.4.3/)	Supplies	Existence of compartments with background music	Yes	--	Hospital management/ Service chief
		% of boxes with background music/ICU	100%	End of 2019	
Installation of Wi-Fi for tablets and mobiles allowing patients to communicate with loved ones and connect to outside world, favouring entertainment. See Annexe VIII (A.4.4.)	Technical memorandum	Existence of boxes with Wi-Fi connection	Yes	--	Hospital management/ Service chief
		% of boxes with Wi-Fi per ICU	80%	End of 2019	
Availability of a telephone inside the room (optional) See Annexe VIII (A.4.5)	Technical memorandum	Existence of boxes with phones	Yes	--	Hospital management/ Service chief
		% of boxes with phones/ICU	60%	End of 2019	
Availability of access to sufficient games (PICU), children's videos, books, videogame consoles and educational material for all children admitted covering ages from baby to teenager	Supplies	Existence of educational and reading material for children and teenagers	Yes	--	Hospital management/ Nursing supervisor

ACTIVITIES AND EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Creation of a specific space for adolescent patients, so they have their own place to retreat to and meet in privacy (different from the concept of parents' room), where possible	Hospital management memorandum	Existence of a specific space for adolescent patients	Yes	--	Hospital management/ Service Chief
Specific objective 5: Make available spaces in gardens or patios and ensure patient access to them (wheelchairs, beds, etc.)					
Make the most of spaces in gardens or patios for patients, guaranteeing access to them (wheelchairs, beds, etc.), where possible. See Annexe VIII (A.6)	Technical memorandum	Existence of open spaces for ICU patients, where possible	Yes	--	Hospital management
Specific objective 6: Guarantee the education process for school age patients during their stay in ICU					
Creation of a school for children or access for school age patients to "hospital classroom" resources during their stay in ICU	Hospital management memorandum	Existence of school for children or access to "hospital classroom" resources	Yes	--	Hospital management
Specific objective 7: Ensure comfort and functionality in the treatment area					
Controlling of appropriate and adequate lighting to work in the area. In NICUs, ensure the special conditions required by this unit. General lighting in the rooms of adult and paediatric patients is of 100 lux. (For NICUs consult Annexe VIII section E)	Technical memorandum	Existence of spaces with lighting that fulfils regulations in all common areas	Yes	--	Hospital management/ Maintenance Service
Adequate noise control in the work area. In general, total background noise level in intensive care should stay below 40 dBA, with a maximum operative level of 55 dB in work areas, which allows education and learning. In NICUs, ensure the special conditions this units requires, See Annexe VIII, section E	Technical memorandum	Existence of spaces with noise levels in line with regulations in common areas	Yes	--	Hospital management/ Maintenance Service
Implementation of an adequate access to documentation with sufficient computer points and Wi-Fi to consult patient histories in doctors' and nurses' rooms. See Annexe VIII (B.3)	Technical memorandum	No of computers installed/ Ideal No of computers x 100 (one per box, one in room for every 3 people)	80%	At end of 2019	Hospital management/ Service Chief
Installation of a clinical information system (SIC) adjusted to the unit's workflow and that allows working in a network	Technical memorandum	Existence of SICs in ICUs adjusted to unit's workflow (Annexe VIII (B.3))	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with SIC adjusted to the Unit's workflow	90%	At end of 2019	
Implementation of a central monitoring system that collects all the unit's monitors, controlled by medical and nursing staff, from a space easily accessible from the bays. See Annexe VIII (B.4)	Technical memorandum	Existence of a central monitor	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with central monitor	90%	At end of 2019	
Installation of systems that allow the patient to be seen from control (circular designs, installation of cameras and connection to closed circuit, etc.)	Technical memorandum	Existence of bays with proper visual access	Yes	--	Hospital management/ Maintenance Service
		% of bays with proper visua access/ICU. See Annexe VIII (B.5)	80%	At end of 2019	
Specific objective 8: Ensure comfort of staff and in the administration area					
Make available appropriate work spaces equipped with the necessary installations to complete the work	Technical memorandum	Existence of work spaces prepared for the function that will take place in them	Yes	--	Hospital management/ Service Chief
Make available rooms for guard staff, with appropriate spaces and preserving the driving aesthetic theme found in the unit. See Annexe VIII (C.2)	Technical memorandum	Existence of rooms for guard staff with appropriate spaces	Yes	--	Hospital management/ Maintenance Service

ACTIVITIES AND EVALUATION

ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
. **Specific objective 9: Ensure comfort in the family and parent area (Neonatal and Paediatric Intensive Care Units, NICU & PICU)**					
Installation of an appropriate signposting system involving visible signs on rooms, signs to show access routes, preserving the aesthetics established by the unit. See Annexe VIII (D.1)	Technical memorandum	Existence of signposted bays	Yes	--	Hospital management/ Maintenance Service
		% of signposted bays/ICU	100%	At end of 2019	
Make available “sitting rooms” instead of “waiting rooms”, where possible. See Annexe VIII (D.2)	Technical memorandum	Existence of an appropriate sitting room for family members	Yes	Five Years	General director of healthcare coordination/ Hospital management
		% of ICUs with an appropriate sitting room for family members	50%	At end of 2019	
Make available rooms for relatives in highly critical situations that ensure privacy, where possible	Technical memorandum	Existence of a family room for critical situations	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with a family room	>95%	At end of 2019	
Make available a room where a terminal patient can be accompanied in an intimate way in order to say goodbye, without pressures of time or space, in order to begin the healthy grieving process. See Annexe VIII (D.4)	Technical memorandum	Existence of a “good-bye” room	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with a “good-bye” room for relatives	>95%	At end of 2019	
Specific objective 10: Ensure specific operation in ICUNs					
Make the unit’s distribution appropriate so that the care process can be focused on treating the mother-baby-family unit, with CCD/NIDCAP	Technical memorandum	Existence of optimal distribution in NICUs	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUNs with optimal distribution	100%	At end of 2019	
Provide adequate levels of comfort in the waiting room, as well as in the patient, staff and family areas	Technical memorandum	Existence of spaces with adequate comfort	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUN spaces with adequate comfort	>95%	At end of 2019	
Make available a specific rest room attached to the Unit for parents (personal hygiene and showers, resting/living room), where possible	Technical memorandum	Existence of a rest area for parents	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUNs with a rest area for parents	>95%	At end of 2019	
Make available a meeting room for parents and support groups, where possible	Technical memorandum	Existence of a meeting area for parents and support groups	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with meeting areas for parents	>95%	At end of 2019	
Make available a space for “sibling workshops”, to prepare siblings (and other family members) for entry into the Unit and meeting with the young patient, where possible	Technical memorandum	Existence of “sibling workshop” spaces	Yes	--	General director of healthcare coordination/ Hospital management/ Service Chief
		% of ICUs with “sibling workshop” spaces	70%	At end of 2019	

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Programme 8: End-of-life Care

Justification

Although the primary goal of intensive care is to recover either fully or partially the condition prior to the patient's admittance, on occasions this is not possible. At this point, the therapeutic objective will change, the fundamental basis of the new approach being to reduce suffering and offer the best possible level of care, including that related to end-of-life.

On this point the ethics committee of the Society of Critical Care Medicine establishes that "… palliative and intensive care are not mutually exclusive options but should rather coexist…" and "…the healthcare team has the obligation to administer treatments that alleviate suffering that originates from physical, emotional, social and spiritual sources…".

The primary goal of palliative care (PC) in any clinical sphere is to administer comprehensive care to the patient and his/her surroundings with the intention of allowing for a death that is "…free from discomfort and suffering for the patient, family members and carers, in accordance with his/her wishes and clinical, cultural and ethical standards…". In this context, and according to diverse studies, in SMIs approximately 10-30% of deaths occur after beginning limitation of life support (LLS) (Annexe IX).

LLS will be applied comprehensively in a global palliative care plan that will include both pharmacological and non-pharmacological measures that, with a focus on dignity and comfort, will include the both the patient and family's physical needs as well as psychosocial and physical ones. This approach must be carried out in an interdisciplinary manner, and all professionals involved in the treatment must be made aware of this.

The complex decisions made in the context of the critically ill patient at the end of his/her life can produce discrepancies between healthcare professionals, and between the latter and the family members or carers in the specific case of the paediatric patient. Professionals must have at their disposal the skills and tools necessary to resolve these conflicts. Open and regular discussion will be important, allowing to create a teamwork culture that is open, coherent, and flexible and allows parties to lay out their doubts and worries at an early stage, and after death, in a constructive manner *(see Annexe IX).*

General objectives

⇨ Ensure the adaptation of end-of-life care (AEoLC) that covers the physical, mental, emotional and spiritual needs of patients and family members and provides support for professionals
⇨ Create an appropriate process and record of LLS following the recommendations of scientific communities
⇨ Reduce the uncertainty and variability of LLS in certain diseases

Specific objectives

1. Have a AEoLC protocol
2. Control physical symptoms of patients in end-of-life situations
3. Facilitate the accompaniment of patients in end-of-life situations
4. Cover the emotional and spiritual needs of patients and family members in end-of-life situations
5. Have a LLS protocol that follows the recommendations of scientific communities
6. Ensure that patients' needs and autonomy in LLS decision-making are respected
7. Ensure the participation of all the professionals involved in the LLS.
8. Have specific criteria for LLS for certain diseases

EVALUATION					
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Elaboration/Updating of a protocol for optimising end-of-life care, multidisciplinary	Specific document	Existence of a protocol for optimising end-of-life care	Yes	--	Service Chief/ Nursing supervisor
		SEMICYUC indicator	100%	Yearly	
Implementation of palliative sedation appropriate for patients in an end-of-life situation	Clinical history: Prescription note and administering of treatment	No of patients in end-of-life situations with palliative sedation appropriate to the symptoms/No of patients in end-of-life situations	>95%	At least one yearly observation	SMI professional responsible for the approach
Implementation of flexible visiting hours for families of patients in end-of-life situations (See programme 1: ICU 'open doors')	Specific record or direct observation	No of patients in end-of-life situations with flexible visiting hours/No of patients in end of life situations	100%	At least one yearly observation	Service Chief/ Nursing supervisor
Integrations of emotional support mechanisms for patients and families in end-of-life situations	SMI working plan	Availability of healthcare resource: Access to a psychologist	Yes	--	Hospital management/ RRHH
Elaboration/Updating of the LLS protocol (Limitation of Life Support)	Specific document	Existence of a LLS protocol	Yes	--	Service Chief/ Nursing supervisor
		SEMICYUC indicator	100%	Yearly	
Implementation of a specific record for LLS	Specific record: Clinical information system	There is a specific record for LLS	Yes	--	Hospital management SMI/ Systems
		% of ICUs to have a specific record for LLS	70-80%	At end of 2019	

		EVALUATION			
ACTIVITIES	ACTIVITY RECORD	INDICATOR	STANDARD	REGULARITY	RESPONSIBILITY
Systematic consultation of the medical centre's record of prior instructions for patients who receive LLS	Specific record	No of patients with LLS for whom the record has been consulted/No of patients with LLS	>95%	Twice monthly	Hospital management/ Service Chief
Incorporation of prior instructions in decision-making leaving evidence of the process in the clinical history	Clinical history	No of patients with LLS were the existence of prior instructions has been taken into account/No of patients with LLS	>95%	At least one yearly observation	Service chief
		No of clinical histories of patients with LLS that state the use of prior instructions in decision-making/No of clinical histories of patients with LLS	>95%		
As far as possible, LLS with be carried out as a consensus with the participation of nurses and other professionals involved in the patient's care	Clinical history	No of LLS completed by consensus and with the participation of the nursing staff/No of LLS	>90%	At least one yearly observation	Service Chief
Elaboration of specific protocols for LLS in agreement with other specialities	Specific documents	Existence of protocols on LLS in determined diseases	At least 1	Yearly	Head of SMI/ SMI professional responsible for the approach

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Annexe 1. Definition of “ICU open door policy”

An “open doors” ICU can be defined as “those units who have as one of their objectives the reduction or elimination of any limitation imposed on temporal and physical aspects, as well as those related to relationships, for which there is no justification” (Giannini A. 2010). In general, it refers to the set of patterns or rules of operating in ICUs directed towards supporting communication between patients and both their family members and the professionals who treat them.

The “open doors” ICU considers actions related to relaxing rules on the time and number of people who may visit patients, proximity (physical contact, nearby waiting rooms) and communication.
It includes measures such as those indicated below:

- Visiting rules that respond to the needs of patients and families without hindering the work of the professionals, along the following guidelines:
  a. Relaxing rules on visiting hours or longer visits
  b. Visits from adolescents and children
  c. Accompanying the patient through the dying process
- Remove barriers that are consistently unnecessary (except in special cases) such as gowns, footwear
- Recognise the patient as an autonomous person, capable of deciding who if next-of-kin.
- Facilitate communication between patients and families
- Facilitate communication between family and professionals (see programme 2).

Specific measures for PICUs

1. Avoid gloves in paediatric patients: It will be avoided that parents or family members who look after them use gloves, since children need and even ask for direct hand on skin contact.
2. Avoid masks in paediatric patients: the use of masks will be restricted to cases where the patient or parents have an infectious-contagious illness that can be transmitted by air. The facial expressions of those who surround the child is paramount to his/her cognitive and emotional development, especially in children of breast-feeding age. A child does not smile if she/he is not smiled at. For a child of breast-feeding age to see those around him/her with a mask is like seeing a world without faces, facial expression, or smiles.
3. The child has the right to be accompanied by parents for as much time as possible. With the goal of guaranteeing this right, paediatric ICUs must have individual rooms with a bed for an accompanying person to accommodate chronic patients or patients with illnesses that require long periods of hospital admission, such as oncological illnesses, transplants, etc.
4. Wherever possible, it is recommended that the parents participate in the care of their children while these are in the PICU: daily washing, feeding, aspiration of secretions, tracheostomy change, etc.
5. Parents may be present at the foot of the bed during multidisciplinary daily ward rounds to increase time spent with children
6. Parents may be present during invasive procedures and during cardiopulmonary resuscitation (CPR), if they wish to, and the medical and nursing team are in agreement. In such cases the presence of a healthcare professional will be required who has been trained to explain to the parents the procedure taking place and what is happening in the clinical setting.

Barriers to the change and possible solutions

Barriers

a. Physical barriers: architectural structures.
b. Opposition by other services
c. Perception by ICU staff:
- *It is not considered a problem*
- *A restrictive visiting policy is frequently preferred*
- *Arguments presented in favour of a restrictive policy:*
  - *Protection of patient against:*
    - *Infections*
    - *Applied systems*
    - *Protection of the work*
    - *Avoid family-induced psychological stress*
    - *Patient-related*
    - *Staff-related*
    - *Family-related*

d. Related to patients' family members:
- *Not knowing reason for the change*
- *Feeling of guilt if visiting time is not used*
- *Perception of inappropriate levels of privacy*
- *Language barriers (in communication with professionals)*

Possible solutions:

a. Motives for opening the ICU's doors:
- *Visitors do not increase risk of infection*
- *Continuing communication favours the information process*
- *Family members can help the patient's recovery and come to "be part of" the ICU team*
- *The child has the right to be accompanied by his/her parents as much time as possible (European Charter for Children in Hospital, 1986)*
- *The presents of parents and family members reduces stress, fear and anxiety in the child reducing need for sedation and analgesia, favouring harmony with the respirator, reducing cardiovascular stress and reducing length of stay in ICU.*
- *The participation of the parents in the child's treatment reduces axiety and fear in the parents, which also has positive repercussions on the child's treatment*
- *Family members have the right and the obligation to participate in the end-of-life process*
- *It is beneficial for the ICU:*
  - *Valuing of the work*
  - *Human relations*
- *It is obligatory for new circumstances*
  - *Lower sedation levels*
  - *Admission of less seriously ill patients*

b. Promote consensus and alliances through information-sharing/communication with all patients
c. Education/training:
- *Culture of openness (base: courses, workshops, seminars).*
- *Way the change is carried out (functioning: information booklets).*

Annexe II. Analgesia, sedation, delirium

Pain, anxiety, agitation, stress or alterations in the circadian cycle are frequent problems among patients admitted to ICU. They are all, to a greater or lesser degree, related to another relevant complication such as delirium; and together with the coma they are frequent manifestations of cerebral dysfunction in the critical patient associated to a clinical decline. An appropriate management of these symptoms improves the patient's progress in the short and long term, can reduce morality and, probably, also reduces the condition known as post-ICU syndrome. The persistence of pain, becoming chronic pain, sleep alterations and post-traumatic stress are reduced significantly.

The priority goal should be to keep the critical patient alert and pain-, anxiety- and delirium-free. There is sufficient evidence to show that this is possible, safe and beneficial for the patient. It is possible that this might not be a viable option for some patients, at least in the very first stages of the illness, but the aim must be for these patients to be a smaller group and not the majority of cases.

The concept of the "ICU triad" recognises that pain, agitation and delirium, and therefore their treatment, are inextricably linked. In accordance with the principle that it is better to treat the illness than merely cover it up, sedatives should only be used when pain has been treated and delirium either ruled out or treated.

Objectives

1. **Pain**

   1.1. Keep the patient pain-free: verbal-numerical rating scale (VNRS) <4 or Behavioural Pain Scale (Spanish version- ESCID) <4.

2. **Sedation**

   2.1. Define a daily sedation goal in each patient, adapting to his/her clinical situation. This should maintain a level on the RASS (Richmond Agitation-Sedation Scale) between 0, -2 in the majority and <-4 only in unique cases:
   - *Treatment with neuromuscular blockers.*
   - *Intracranial hypertension.*
   - *Refractory status epilepsy*
   - *LLS*
   - *Some cases of severe respiratory distress (PaO2/FiO2 <120).*
   - *Completion of some diagnostic or therapeutic procedures*

Actions

1. **Monitoring**

   1.1. Adequate monitoring and documentation of pain (record on the patient's chart)

   1.1.1. Communicative patient. Verbal numerical rating scale (VNRS) or analogue scale (VAS): The best pain indicator in patients is their own self-reporting, in terms of intensity as well as duration and characteristics. It must be recorded in validated scales, those most appropriate in the case of critical patients being the VNRS (in its visual and verbal versions), followed by the VAS.

1.1.2. Non-communicative patient. Behavioural pain scale (Spanish version- ESCID): Wherever possible, the assessment of pain in these patients must be based on behavioural pain indicators, by means of validated scales. The only scale of such characteristics that has been validated and is in Spanish is the ESCID. In patients whose behavioural indicators can be slanted or eliminated (deep sedation, neuromuscular blockers, severe polyneuropathy, tetraplegia, etc.), variations in physiological constants produced by sympathetic stimulation, such as hypertension, tachycardia, perspiration and mydriasis are clues to the presence of pain.

1.1.3. Frequency: At least every four hours or any time pain is suspected, analgesia will be administered by epidural bolus or the speed of transfusion of pharmacological drips will be modified, and also prior to procedures documented as painful. Among painful procedures, some of the most notable are the treatment of wounds and drainages, with special attention to chest drains; aspiration of tracheal secretions; the mobilisation of patients; the insertion of venous and arterial catheters and respiratory physiotherapy.

Furthermore, for any analgesic therapy pain must be assessed and documented before and after the administration of the drug, in order to evaluate response.

1.2. Adequate monitoring and documentation of sedation

1.2.1. Use of scales of sedation (RASS/SAS – scale of agitation of sedation -) in patients with superficial sedation.

1.2.2. Objective monitoring (example: bi-spectral index - BIS®-) in patients with RASS < -4 and in patients with neuromuscular blockers.

1.2.3. Frequency: At least once every 4 hours and after any change in the dosage of sedatives and/or analgesics.

1.3. Optimisation of analgesia and sedation in accordance with the monitoring process

1.3.1. Administration of analgesic drugs necessary to reach VNRS or ESCID values of <4

1.3.2. Once absence of pain has been ensured, administering of sedative drugs to obtain the following RASS values:

- Between 0 and -3 for those patients for whom it has been found necessary to achieve conscious sedation. Adjustments will be made to necessary drugs to reach dynamic sedation.

- Between -4 and -5 for those patients mentioned in point 2.1, where deep sedation is found necessary. In these cases hourly monitoring will be completed using the BIS® system or another form of objective monitoring, in order to obtain values between 40 and 60 and suppression rates of 0%.

1.4 Appropriate monitoring and documentation of delirium

1.4.1. Use of scales CAM-ICU or ICDSC in patients with RASS>-3

1.4.2. Frequency: at least every 12 hours

In Paediatrics there are specific scales to assess delirium (the prevalence of delirium in PICUs is 20%): CAPD scale (Cornell Assessment Paediatric Delirium), PAED (Paediatric Anaesthesia Emergency Delirium Scale), pCAM-ICU (Paediatric Confusion Assessment Method- Intensive Care Unit)

2. Prevention of delirium (including anxiety and agitation)

2.1 Correct physical/sensory deficits

Example: permit use of glasses, headphones, dental prosthetics

2.2 Measures for the patient's reorientation

- *Visible clock, calendar, control of ambient lighting*
- *Permit the patient to have available objects familiar to him/her*
- *Facilitate regular visits by family and friends, and the lengthening of their stay*
- *Explore measures for psychological comfort and comfortable surroundings*

2.3. Avoid sleep deprivation

- *Explore measures to make surroundings comfortable*
- *Adjust time schedules for medication and nursing procedures*
- *Avoid monitoring at unnecessary times, during sleep*
- *Measures to facilitate sleep and help maintain the circadian cycle (for example: earplugs, eye mask, music, massage, medication)*

2.4 Avoid immobility

- *Early mobilisation, active and passive exercise sessions, limit devices that reduce the patient's mobility (tubes, catheters, etc.)*
- *Avoid therapeutic immobilisation measures: restraints*
- *Timely removal of catheters, tubes, etc.*
- *Facilitate, where possible, the participation of the patients in his/her self-treatment (for example, personal hygiene)*

2.5 Appropriate pain treatment

Poor analgesia can trigger delirium

2.6 Appropriate selection of sedatives

3. Treatment

3.1. Treatment of pain

3.1.1. *Preventative treatment before carrying out potentially painful procedures*

3.1.2. *Analgesia based preferentially on use of opiates*

3.1.3. *Supplementary use of non-opiate analgesics to reduce the dosage of the opiates. This can be the primary alternative in cases of light pain.*

3.1.4. *Assess the use of local anaesthetic (thoracic epidural) in select conscious patients (for example, thoracic trauma)*

3.2. Sedation

3.2.1. Appropriate selection of sedative: preferential use of propofol or dexmedetomidine. Limit use of benzodiazepines (midazolam) for patients who require deep sedation or management of abstinence symptoms.

3.3. Treatment of delirium

3.3.1 In the event that the CAM-ICU tool gives positive values:

- Look for the aetiology
- Check if the non-pharmacological measures describes in the previous bullet point are being applied
- Check what medication has been given and remove that which is unnecessary. Avoid benzodiazepines.
- As a last resort assess pharmacological treatment

Indicators

Developed by the Society of Intensive Medicine (SEMICYUC), 2011. http://www.semicyuc.org/temas/calidad/indicadores-de-calidad

1. Monitoring of sedation
2. Appropriate sedation
3. Daily assessment of sedative interruption
4. Monitoring of pain in the communicative patient
5. Monitoring of pain in the non-communicative patient
6. Inappropriate use of neuromuscular blockers
7. Monitoring of neuromuscular blockers
8. Identification of delirium
9. Maximum dosage of opiates and sedatives
10. Monitoring of sedation during neuromuscular blockage

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Annexe III. The figure of primary carer for long-stay patients

- In long-stay patients, family presence will be facilitated
- The selection of one-two primary carers per patient will be assessed, who can be in the ICU with complete flexibility in time schedules
- The carer must always be adequately identifiable, which will be facilitate by his/her ID card
- The primary carer will be trained in hand hygiene techniques and the corresponding isolation measures will be explained to the carer in particular cases.
- The primary carer must adhere to some exceptions:
  - When the patients requires specific treatments he/she will have to leave the unit whenever indicated by staff, and also:
  - If the patient wishes it
  - If the carer fails to follow the rules of the unit

By way of example:
ICU rules for the University Hospital of Torrejón (Hospital Universitario de Torrejón) for the primary carer.

Information and rules for the primary carer

1. Characteristics of the Unit

Your relative has been admitted to the Intensive Care Unit. When you enter the unit you will find your family member monitored by a number of cables and apparatus making different sounds.

The Unit's staff has central control monitors that allow them to see everything that is happening and will assist whenever necessary

The unit has 16 individual compartments. It is important that once inside your family member's compartment you do not come in and out continuously, in order to preserve the privacy of the other patients

2. Visiting hours for the primary carer and basic rules

As primary carer you will be the person with the greatest amount of responsibility in terms of accompanying and receiving information about your family members. You will be able to enter the unit from 11 o'clock in the morning and remain until 10 o'clock at night, always with your ID card visible. During ordinary visiting hours there may only be two people accompanying the patient.

Basic rules that you must follow:

- Always ring the bell before entering the Unit
- Leave the waiting room when indicated by staff, and avoid staying in the corridor
- Do not bother the rest of the patients in any way: we ask that you speak in a low voice and avoid using mobile phones
- Do not allow food to enter the Unit
- If the patient wishes access to food, he/she will have to leave the ICU
- Exceptions aside, medical information will only be given out in accordance with the established schedule up until 14:00
- Healthcare staff will be able to make the decision to take away your primary carer's card for a number of reasons, always seeking the best interests of the patient. In this case you will still be able to access the unit during established visiting hours in the morning and the afternoon/evening.

3. Hand hygiene

Whenever you come in and out of your family member's compartment you must apply hydroalcoholic solution to your hands. You will find dispensers at the entrance and exit of both the compartment and the unit. You will find the hand hygiene technique instructions attached- if you have any questions, do not hesitate to contact the unit staff.

4. Isolations

It is possible that your family member be put under ISOLATION measures for diverse reasons that will be explained to you

- You will wash your hands before entering
- You will put on a gown and gloves to be found on the side table at the compartment's entrance
- You will put on a mask if necessary
- Whenever you leave the compartment you will take off your gown and gloves, placing them in the black bins you will find inside the compartment
- You will wash your hands on leaving the compartment
- When you require attention of the healthcare staff you will ring the bell

If you have any doubts about any of the points made above, do not hesitate to contact any member of staff

UNIVERSITY HOSPITAL OF TORREJÓN
INTENSIVE CARE UNIT

INFORMATION AND RULES FOR PRIMARY CARER

I (name of relative)

…………………………………………………………………

With national ID (DNI) number:

…………………………………………………………………

Relation to the patient:

……………………………………………………………

Have been informed of the rules for being primary carer and agree to comply with them.

In Torrejón de Ardoz, on the ……… of ………. 2016

Signature of primary carer

Annexe IV. The school for ICU relatives

- Analysis of the patient's specific needs
- Leaflet listing of needs and activities that each family will complete
- Corresponding training measures on the part of the team: for personal hygiene, rehabilitation, feeding
- Training for the team on teaching skills and standardisation/elaboration of treatment leaflets
- Database of primary carers

Annexe V. "ABCDEF" bundle of measures (original version and tools available at www.icudelirium.org)

A

Assess, Prevent and Manage Pain

There are validated tools that are recommended that can be used in every patient every day.

B

Both spontaneous awakening trials and spontaneous breathing trials

Providing sedoanalgesia when needed but stopping it when unnecessary to avoid over-use and unwanted side effects.

C

Choice of analgesia and sedation

Published evidence helps to decide which is the best option for a patient's specific circumstances

D

Delirium: Assess, prevent and manage

There are validated tools that are recommended that can be used in every patient every day

E

Early mobility and exercise

Optimise mobility and exercise for every patient according to his/her ability (with the help of whichever team member assigned the responsibility) in order to restore mobility

F

Family engagement and empowerment

Good communication with the family is critical at every step of a patient's clinical course, and empowering the family to be part of the team to ensure best care is adhered to diligently will improve many aspects of the patient's experience. The F reminds us that patients and families are the centre and focus of care.

Annexe VI. Example of “ICU without delirium” protocol. University Hospital of the Southeast (Hospital Universitario del Sureste)

ICU WITHOUT DELIRIUM PROJECT

INTENSIVE MEDICINE SERVICE, UNIVERSITY HOSPITAL OF THE SOUTHEAST

ON ADMISSION

- SCALE OF DELIRIUM RISK
- ASSESS COMPLIANCE AND RISK OF DEPRIVATION
- ASK FOR GLASSES OR HEADPHONES
- ADJUST MEDICATION FOR NIGHTTIME

AT NIGHT

- TURN OFF LIGHTS AT 00:00
- ADJUST VOLUME LIMITS ON ALARMS
- PROGRAMME ACTIVITIES TO RESEPCT SLEEP
- ASSESS SUSPENDING CONSTANT SOURCES OF DISTURBANCE

DAILY

- MONITOR DELIRIUM (ICDSC).
- MOINTOR PAIN (EVA OR BPS). PROTOCOL.
- DECIDE SEDATION AND MOBILISATION GOAL
- REASSESS NEED FOR RESTRAINT
- REASSESS REINTRODUCTION OF MEDICATION
- FREQUENT REORIENTATION
- FAVOUR LONGER VISITS FOR HIGH-RISK PATIENTS
- ENCOURAGE USE OF NEWSPAPER, RADIO, GLASSES, HEADPHONES…

AT START OF WEANING PROCESS

- NON-DEPRIVATION PROTOCOLS
- REMIND TO USE GLASSES & HEADPHONES

AT DISCHARGE

- FILL DATABASE
- QUALITY INDICATORS

Annexe VII. Follow-up consultation for patients with post-intensive care syndrome

Two months after discharge, patients identified as high-risk will attend the consultation:

- To be checked and to undergo functional assessments of their state of health and their social needs
- To refer the patient to the appropriate rehabilitation services and/or to those of other specialists
- The consultation will remain in place for patients who are recovering more slowly than expected or who have developed a previously unidentified morbidity.

Annexe VIII. Humanised infrastructure

A. INTERVENTIONS IN THE PATIENTS’ AREA

A.1. Interventions for patient privacy

A.1.1. Patient privacy

Through the use of folding screens, curtains and other separation methods between bays that make privacy possible.

The folding screens and curtains must be made from approved materials whose durability, resistance, hygiene and ease of cleaning are certified, fire retardant and where possible with noise absorption.

Mobile features must be easy to move around and have various possible positions to adapt to specific needs and spaces. Curtains must be easy to move.

A.1.2. Individual compartments

The best way to make the patient feel at home is to have his/her “own space” and privacy. For this reason it would be highly beneficial for all ICUs to have individual compartments, with windows and translucent doors.

When the patient requires privacy, such as for personal hygiene activities, curtains and, ideally, light-dimming systems (“electronic glass”, which loses transparency when an electrical current is applied to it) can be used to obstruct the view from the outside.

Door locks (automatic: swing doors should be avoided), that allow the patient to communicate with relatives in total privacy, without anybody hearing them.

Furthermore, this reduces ambient noise which, according to the World Health Organisation (WHO) must be kept below 40 dB. *(See A.4.)*

A.1.3. Compartments with bathroom, or near to shared bathrooms

The bathroom should be highly functional, with a door that has the minimum dimensions for a wheelchair to fit through it, and with minimum measurements for the space inside so that the wheelchair can perform a 360° turn without any obstacles, and so that the person can be accompanied by someone.

The access to and size of the bathroom must allow the possibility to bring out a person who has collapsed.

The elements necessary to guaranteeing the patient’s safety will be provided: an approved toilet fitted at an appropriate height to be used from a wheelchair, with support bars and handles to assist the user.

The shower will be at floor level and will have a fold-down seat, support bars and anti-slip, quick-drying and easy to clean floor.

The sink must be accessible from a wheelchair and have a mobile or folding mirror.

The bathroom must also have adequate lighting, natural if possible, and a ventilation system that ensures airflow. Furthermore, it must have oxygen outlets installed and a system to communicate with healthcare staff.

An internal sink is recommended (or at least one sink per two compartments).

A.2. Patient’s environmental comfort

A.2.1. Appropriate colours and pictures (paediatric patients)

Appropriate colours, paintings and drawings or graphics, taking into account the decoration of the ceiling, which is sometimes all the patient sees.

Colours influence our mood, all have a certain meaning, since we tend to associate feelings with specific colours. Ideally a “general neutral space” would be created, to be contrasted with an “active space”.

The “general neutral space” is created with clear colours, preferably white for walls and ceilings, since the colour amplifies rooms making them seem bigger, and reflects light to make them seem brighter.

The “active space” is created with one or several colours to be picked according to the needs, uses or feelings to be created in the space.

It is important to integrate the two spaces in a way that is aesthetic, decorative and functional.

This chart shows the beneficial effects of different colours on our mood that can be taken advantage of to the benefit of patients, relatives and healthcare staff.

	FEELINGS AND IMPRESSIONS	
RED	Heat Closeness Happiness	Bravery Strength Enthusiasm
ORANGE	Fun Sociable Welcoming	Lessens afflictions Combats fatigue
YELLOW	Fun Optimistic Friendly Clears confusion and negative thoughts	Raises self-esteem Helps with depression, phobias and fears
BLUE	Rest Trust	Serenity Calm
GREEN	Tranquillity Security Harmony Stability	Activates memory Combats stress, tiredness and insomnia

In terms of images, decorating the walls with drawings for children can reduce the need for sedation and analgesia in children.

Furthermore, providing the patient with a positive distraction in the form of images of nature and pictures for children favours the curative environment.

Daily exposure to images of nature leads to a significant recovery from stress in just a few minutes (reduction of arterial and muscular tension). This effect is greater in patients confined to closed spaces for long periods.

Pilot studies show that virtual skies on the ceilings have a beneficial effect, causing physiological relaxation and modifying the negative subjective experience of being in an enclosed space. These skies are especially useful in units, such as ICUs, where patients are lying down looking up. The exposure to early visual stimulation accelerates neurological recovery in patients with moderate neurological dysfunction (e.g. after cardiac surgery)

A.2.2. Natural light

The ganglionic cells, the intrinsically photosensitive cells of the retina which are also known as the “third photoreceptor”, are stimulated when there is a sufficient quantity of blue light in wave longitudes of approximately 482 nm. They send information to the suprachiasmatic nucleus of the hypothalamus, the brain’s circadian pacemaker.

The normal functioning of the third photoreceptor of the retina is important for normal biological and physiological activities, and for health in general.

As well as maintaining circadian rhythm, the third photoreceptor has been shown to be important in various non-retinal illnesses, such as sleep disorders, seasonal affective disorders, mood disorders and migraines.

The biological effect of stimulation of the third photoreceptor of the retina is also mediated by melatonin, serotonin and cortisol, in other words with circadian rhythm, mood, depression and stress.

In order to preserve the sleeping/waking cycle (circadian rhythm), to animate the patient and avoid delirium, designs will be prioritised with windows to the outside fitted with blinds or curtains, and with mirrors to see outside if it is not possible to guide the patient to the window without losing control.

In the case of an internal ICU, the situation can be adapted by substituting the existing lighting for new lights that are programmed to simulate the solar cycle, that can be managed from the control station. This will avoid modifying the patient’s circadian rhythm.

Natural light will be complemented with quality artificial lighting that professionals will use to carry out their work.

It is also recommended that the patient has a bedside lamp to use for reading. *See A.5.2. Light control.*

A.2.3. Furniture

With the appropriate furniture and its correct distribution, a functional space with optimal circulation can be created, which avoids unnecessary disturbances and obstacles. In this way, the staff can carry out their jobs correctly, the patient is made as comfortable as possible, and relatives have space available to them inside the room.

For this reason, a space must be created where the patient feels at home, with the possibility of personalising the room with photos, cards, personal items and other objects brought in by the family.

The patient will have an articulated bed with a control to operate it him/herself and a bedside table for personal belongings.

In the room there will also be a chair-bed for relatives, different from the chair where the patient can sit up from bed when his/her condition permits, with a side table where the relative can leave his/her things when entering (coat, bag…).

Standards of quality and functionality for the furniture must be taken into account:

- *The patient’s bed must be approved, following all standards of security and ergonomics, and guaranteeing stability even when one or two people sit on the sides. There must also be no risk of getting hands, feet or head caught in the bed; beds with wheels must have an efficient braking system that it easy to engage. Electric beds must have their electrically parts protected in a convenient way, to avoid risk caused by falling liquids, and they must have an emergency battery or a manual system that allows the bed to be moved to a horizontal position in the event that it stops working.*
- *The bedside table must be sturdy, and capable of supporting the weight of somebody who leans on it. It must be resistant and easy to clean, without nooks and crannies so it can be cleaned easily. All parts of the table must have rounded edges with no protrusions or sharp edges, with ergonomic drawers. If the table has wheels, (which is recommended), there must be an effective and easy to use braking system that guarantees that the table will not move when somebody leans on it.*
- *Side table for the relative: it must be resistant and*

- *stable, the edges must be rounded with no sharp sides, it must also be easy to clean without indentations and be easily moved to facilitate cleaning of the space.*
- *Patient's chair: made from approved material specifically designed for this function, that disperses the pressure from the patient's body weight to avoid it being concentrated on a particular point and causing a decubitus ulcer. The chair's upholstery must be removable and easy to clean (of imitation leather material). The chair's height must be able to be changed to make it as comfortable as possible to sit down or get up, and must be easily moved to facilitate cleaning of the space.*
- *Sofa-bed for relatives: it must be regulation approved, comfortable and ergonomic, with removable and easy to clean upholstery, that can be moved easily for cleaning purposes.*

All furniture must fulfil the requirements determined by resistance and durability and must be finished for public spaces and hospitals, according to the laws: UNE 11022, UNE 56868, UNE 11019, BS 2483 and UNE 11011, as well as NTP 38: Reaction to fire.

A.3. Encourage communication and orientation

A.3.1. Calendar. Clock.

A stay in ICU constitutes a stressful situation for the patient, causes him/her to feel disoriented, and lose sense of time. For this reason it is important that the patient has a calendar and clock in his/her room that are visible from the bed. It must be possible to remove them if the patient prefers not to be aware of the time he/she spends admitted.

A.3.2. Boards, alphabets, specific apps

In order to communicate with patients with invasive mechanical ventilation who cannot speak. We are observing that steps and being taken to develop new and more advanced possibilities such as "eye tracking" technology, ocular tracking devices that follow patients' eye movements by means of small cameras, allowing them to communicate by looking fixedly at images or words on a screen.

A.3.3. Intercom with central nursing station

It is very important to ensure that each bed possesses communication with the central nursing station.

A.4. Entertainment

A.4.1. Reading light for conscious patients

Bedside light so that the patient can read, with an adjustable bulb and sufficient light for reading without causing dazzling.

A.4.2. TV

The patient can enjoy his/her time more when watching favourite programmes, and this will help to maintain a certain degree of routine. Educational videos on the ICU and its healthcare process can also be shown. The television system must be adjustable so that the patient can see it from the bed or the chair. Solutions exist to enable one monitor to be made into a split screen, reducing the costs of acquiring specific monitors.

A.4.3. Background music

As early as in Ancient Greece, philosophers, historians

and scientists wrote about music as a therapeutic tool. Pythagoras recommended singing and playing a musical instrument every day to eliminate fear, worry and rage from the body, although it is in the 19th century that reports of controlled experiments started to appear.

Music has physiological effects (influencing breathing rhythm, arterial pressure, stomach contractions and hormone levels), and psychological effects: it helps us to control sensations of pain and anxiety. It has also been demonstrated that unconscious people continue listening: the auditory passage, unlike the other sensory system, has an extra opening: the auditory fibres are not affected by anaesthesia, meaning they can continue to listen to music.

It is highly recommended that units have background music so that patients can take advantage of its positive benefits. If this is not possible, it would be good for patients to have access to a radio, music devices, mp3 players, etc., in order to listen to their favourite music.

A.4.4. Wi-Fi connection

For the use of tablets and mobile devices that allow the patient to communicate with loved ones. It is important for two reasons:

- *Remaining connected with relatives and loved ones 24/7 will reduce the stress caused by visiting hours or limitation in the number of people who can visit the patient.*
- *Having Wi-Fi can provide the patient with a great amount of entertainment, since options are infinite: following social networks, reading news articles, watching films, etc.*

A.4.5. Telephone inside the room (optional)

Each room could have a telephone to receive calls from relatives and loved ones. The phone's position must be comfortable and accessible to the patient when in bed.

A.5. Avoid stress caused by light, temperature or noise

Prioritise the appropriate design of spaces to avoid stress factors, taking into account:

- *The location of rest spaces in relation to control spaces, as well as optimal circulation of professionals and relatives*
- *The control of currents of air and of movement, the location of objects that generate noise in the most appropriate place, regulation approved finishing for floors and ceilings with adequate noise absorption properties.*

A.5.1. Temperature control

3 factors must be taken into account:

- ***Temperature:*** *It is important to achieve a temperature that is comfortable for the patient, who must feel neither hot nor cold. The main guidelines that evaluate temperature are UNE-100713:2005, which suggest a temperature*

between 24 and 26° and ASHRAE, which establishes optimum temperature at between 21 and 24°.
There should be a thermostat in each room that can be programmed according to the patient's needs and another general thermostat that controls communal areas from the control point.

- ***Humidity:*** *UNE-100713:2005 guidelines suggest 45-55% and ASHRAE establishes humidity levels at between 30% and 60%.*

RECOMMENDED TEMPAERATURE & HUMIDITY

	UNE 100713:2005				ASHRAE			
	TEMPERATURE		RELATIVE HUMIDITY (HR)		TEMPERATURE		RELATIVE HUMIDITY (HR)	
	MAXIMUM	MINIUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
HEALTH CENTRE	26°C	24°C	55%	45%	24°C	24°C	60%	30%
OPERATING THEATRE	26°C	22°C	55%	55%	24°C	20°C	60%	30%

- ***Ventilation:*** *The unit's ventilation system must be designed to ensure the necessary circulation of airflow between different spaces. It must have easy access points that permit the completion of cleaning, disinfection and maintenance tasks, and filter changes.*

The direction of air circulation must be from the cleanest zones to the dirtiest zones, and the thermos-hygrometric conditions must be made appropriate to each place. Furthermore, this must be achieved without the level of sound pressure exceeding 30 dB in the worst cases.
According to UNE 100713:2005 guidelines, the ICU is classed as a class 1 premises: with very high asepsis requirements, meaning the system would need to have three levels of air filtration. Air circulation between differently classed spaces is only permissible when it takes place from spaces with high air quality requirements in terms of the presence of germs, towards spaces with less stringent requirements.
Taking as a basis he UNE-EN ISO 14644-1:2000 guideline, and from a preventative perspective in terms of infection, the recommended ventilation system is that of a unidirectional flow and the number of batches of air brought in from outside must be equal to or greater than 20 hourly renewals.
The UNE 100713:2005 guideline indicates that although with three stages of filtration a good level of air quality is obtained, a minimum air flow from outside of 1200 m3/h must be achieved in order to keep ambient concentrations of anaesthetic gases and disinfectants within an acceptable level (≤0.4 ppm).
In order that everything functions correctly attention must be paid to systematic cleaning and, when appropriate, to the disinfection of air humidifiers, including water heaters, heating or cooling batteries and the collection tray for condensation. To this end the service providers will carry out a series of technical and hygiene controls.

A.5.2. Light control

For patients and relatives, automatic photosensitive systems should ideally be used.
It is highly recommended that there be natural lighting in all patients' rooms, but this must be complemented with artificial light, since these spaces have numerous requirements that must be resolved in order to ensure the patient's comfort and provide healthcare staff with an appropriate environment to carry out their work well.
Efficient lighting can be achieved using the following guidelines:

- *General room lighting: 100 lux. Taking into account that sleeping/waking hours must be respected, and if there is natural light it can be turned off until the natural light level lowers and the general lighting needs to be used.*
- *Bed area: 300 lux in order to examine the patient. If more rigorous examinations are required, this can be raised to 1000 lux using a spotlight. This lighting will only be used for examinations and will be operated by healthcare staff.*
- *For emergency situations, at least 2000 lux are required over the surface of the bed, which can be achieved using additional spotlighting or with supplementary general lighting for use only in cases of emergency and operated by healthcare staff.*
- *Reading light: 20 lux. This can be a light set into the head of the bed or a small bendable lamp at the head of the bed. This light will only be used for reading and can be operated by the patient, or by healthcare staff in the case of checks, administering of medication (if it is possible to do so with this light) during the night to avoid turning on the main light and waking the patient.*
- *Monitoring light: 20 lux if there is no reading light. It is good to have a light source that is not very intense for visits/checks during the night to avoid waking the patient. In all cases, the tone of the light sources must be neutral and the chromatic reproduction must fall into group 1B. It is important to avoid them producing reflections in monitors and glass screens, to avoid dazzling patients and healthcare staff.*

TYPE OF LIGHTING	LIGHTING LEVEL IN LUX	TYPE OF LIGHT	COLOUR OUTPUT
GENERAL LIGHTING	100 lux	Warm and neutral	1B
BED LIGHTING	300 lux	Warm and neutral	1B
EXAMINATION LIGHTING	1000 lux	Warm and neutral	1B
EMERGENCY LIGHTING	2000 lux	Warm and neutral	1B
MONITORING LIGHTING	20 lux	Warm and neutral	1B

A.5.3. Noise control

The WHO advises a noise level of 30 decibels. According to the UNE 100713:2005 guideline the maximum sound pressure for ICUs es 35 dB(A). We must maintain this level, especial during resting hours, since noise affects the patient, influences his/her emotional state, and sleep quality can be severely affected.

An increase of 10dB above these maximum ambient noise levels is permitted in order to allow for communication and learning. In other words, an operative noise level of maximum 45dB. This noise level requires a conscious effort by professionals to control the volume of their voices.

The noise generated in the unit can be internal (that which is generated by day to day activities), or exterior (that which comes in from outside the unit).

We can combat noise using materials that isolate the unit acoustically, such as coverings, materials, ceilings, flooring and screens that absorb sound and isolate it, since this is an obligatory requirement according to the UNE EN 1234 guideline, parts 1, 2 and 3. Section 3.1.1 of the DB HR.

On the other hand, we can combat internal noise by substituting sounding alarms for light-based alarms, putting bleeps on vibrate mode, automatic glass doors, noise metres, moderating the level of conversations and the tones of landline or mobile telephones, avoiding bumps, sharp noises and bangs, not dragging furniture, using appropriate footwear to avoid the irritating noise produced by rubber footwear squeaking against the floor.

A.6. Make available spaces in gardens or patios

Accessible (for wheelchairs or beds), so that patients can go out in the fresh air, if their condition allows. Optionally, these spaces could have oxygen and electricity outlets.

From Roman times up until today gardens have had an important place in our lives, and since the 17th century hospitals have included garden areas in their grounds.

Scientific studies have proved the relationship between wellbeing and contact with nature, measuring parameters such as arterial pressure, perspiration and other indicators, which translate into stress reduction, positive thoughts, better capacity for recovery, etc.

There are three different hypotheses that explain the therapeutic benefits of gardens:

- *Nature restores the emotional centres in the limbic system of the brain, evoking comforting biological responses. In this familiar and natural environment relaxation is made possible, with positive results*
- *The colour green sustains cognitive functions, limiting excessive stimulation and the need for constant attention, allowing a person to develop paying attention to him/herself.*
- *An environment with plants and natural features can restore the balance with the perception of the need to control and the ability to control.*

In cases where it is possible, it would be very good for patients to be accompanied by their relatives in these patios or gardens.

Another option is to use rooftop terraces or accessible decks (as long as they are accessible), especially for urban hospitals that do not have garden spaces. If there are no such spaces, at least areas should be created with French windows and natural light where patients may sit and rest.

B. INTERVENTIONS IN THE TREATMENT AREA

B.1. Controlled and appropriate lighting

Suitable for the work that takes place in the area. (there is often an excess of light in the control areas, that affects other areas.

See proposed measures in A.5.2. Lighting control

B.2. Attention to the acoustics of the work area

Noise is one of the factors that most affects the patient during his/her stay. Noise control is summarised in the following instructions for ambient noise: maximum 45dB during the day and 20dB at night.

In work areas for staff and family areas an operative noise level can be reached to permit communication and learning up to 55dB.

The volume of alarms must be regulated so that they do not sound, or sound softly, inside the bays, and louder at the control station.

B.3. Appropriate access to documentation

The minimum requirements are a computer in each patient compartment and outside the compartments one for every three bays or rooms.

In general, there should be sufficient computer outlets and Wi-Fi to allow rapid consultation of clinical histories and results of clinical analyses and imaging tests, and for access to monitors and medical equipment from the medical work rooms and from the nursing station.

It must be made possible to work in a network by means of a centralised computer system adjusted to the unit’s workflow.

B.4. Central monitoring system

With access to all the monitors and medical equipment of patients admitted to the ICU. Possibility of access an control by medical staff and the nursing team, from any terminal in the ICU

B.5. Ensure that the patient can be observed and monitored adequately from the nursing control station, avoiding the existence of any blind spots

The distribution of the bays should ideally be circular, with the nursing control station in the centre. In cases where because of the number of bays it is not possible to have a visual connection to each one, it is recommended to install a camera monitoring system.

B.6. Appropriate architecture

- *Improve circulation, plan spaces for optimal functioning, avoiding saturating certain spaces or obstructing view of patients by traffic. For this reason, an internal system for the circulation of patients inside the hospital should be created (for trips to have tests, admittances from A&E or from the wards…)*
- *Adapted architecture: the units have very special requirements: it is important to know what they are and resolve all of them so that the unit can be functional and efficient.*

It is very important that there are no architectural barriers: all spaces must be accessible so that patients in beds can be moved with any apparatus they might need.

For this reason it is of fundamental importance that the corridor be sufficiently wide (2>m) to allow the transporting of the critical patient with medical equipment (monitor, respirator, drip) and with medical and nursing staff at the side of the patient's bed. The flooring must be continuous with no level changes (steps, ramps or other structural features that hinder circulation).

The doors must have measurements that are adapted for easy access for the patient's bed with medical equipment, and with medical and nursing staff at the side of the bed. The width of the corridor should also permit beds to be turned easily, and access to rooms and lifts.

The lifts should be spacious enough to permit access to, and contain, the bed, the medical equipment and the accompanying medical and nursing staff.

Furthermore it is important to know all the installations that an ICU requires to make sure they are planned into the building: sufficient electricity, oxygen and vacuum outlets in each bay, the necessary machinery for each room, communication with the control station, emergency lighting systems as well as backup power supplies that guarantee the normal functioning of the unit in case of cuts to the power supply; an anti-fire system with smoke detectors, sprinklers or sprays for fires, extinguisher equipment such as fire extinction points and accessible and clearly signed fire extinguishers.

Aspects of comfort must also be taken into account for the unit: appropriate lighting, temperature and ventilation which are also easy to control, facilities made from aseptic material and easy to clean, avoiding angles or corners with poor accessibility and that cannot be cleaned easily.

It is important to consider noise control in terms of considering using material for finishes (floors, walls and ceilings) with adequate noise absorption capacity.

Another element to take into account are the supply records. The facilities require maintenance, checks and repairs, meaning that the relevant records should not be inside the rooms: they should be stored in adjacent rooms or the unit's service rooms to avoid bothering the patients and, as far as possible, patients should not be subjected to the noise or dirtiness that such actions can produce.

C. STAFF AND ADMINISTRATION AREA

The need to humanise staff areas are the same as those for patient and family areas. Natural light, visual connection with the outside world, pleasant colours, welcoming furniture, the possibility of privacy, the introduction of natural features, etc.

C.1. Appropriate spaces

Work spaces must be signposted, indicating the activity that takes places in them. They must be fitted with the necessary facilities to complete the work and must have optimal conditions to carry it out.

C.1.1. Functional and specific furniture

For the work that will be carried out; regulation approved, easy to clean and move, ergonomic, ensuring good posture and avoiding unnecessary exertion, and safe.

C.1.2. Colours and friendly, homely equipment

All spaces in the unit will have sufficient floor space, and the equipment and its arrangement will be appropriate to the work or the activities that it will be used for. Friendly spaces and environments with a homely and aesthetic style of decoration will be created, where staff (who spend many hours in the unit) can feel the same feeling of "being at home" that we are trying to achieve with the patients.

It is recommended to apply the criteria described above for the patients' area, since we must consider the unit as a universal space and harmonise criteria in order to achieve a coherent, functional and integrate aesthetic, adapting, of course, the established design to each area.

See A.1.3. Ensure privacy –Appropriate colours.

C.1.3. Individual lockers in the staff room

So that staff can leave personal effects or a change of clothes

C.1.4. Communication facilities

Staff must have sufficient communication tools, such as computers, telephone, and other internal communication systems.

C.1.5. Environmental comfort

Care must be taken over lighting, with natural light recommended as the main source, with an additional artificial light that must be sufficiently bright (avoiding dazzling), and adjustable. The spaces that do not have one specific use at all times but be regulated by photosensitive detectors.

Temperature will be controlled by staff, and must range between 19-210 in winter and 20-240 in summer, with a relative humidity level between 40% and 60% in winter and summer.

As in the patients' area, noise contamination needs to be controlled: noise levels above 45dB begin to cause discomfort in the workplace.

C.1.6 Rest spaces

The staff that works in the ICU is subjected to very high levels of pressure, meaning that it would be good to have a "disconnecting" space to sit and take a breather. This space should be highly versatile, with a sofa and chairs (welcoming, comfortable and ergonomic), with a side table, a noticeboard to pin up photos of the team, suggestions, etc.

C.1.7. Eating space

There needs to be an office fitted with a cooker, microwave oven, fridge and freezer, with sufficient tables and chairs for staff to store, heat up or prepare their food.

C.2. Rooms for guard staff

The rooms for the guard staff will follow the same criteria as in point C.1, with appropriate spaces and preserving the aesthetic theme established for the unit, in order to maintain the coherence of the project.

C.2.1. Appropriate furniture (for rest and for work)

- For work: furniture appropriate to the work to be performed (following the principles of safety and ergonomics), taking into account the environmental factors of light, temperature and noise, and creating a comfortable, functional, friendly and aesthetic environment. The same guidelines established in point C.1 are applicable. Appropriate spaces.

- For rest: room with natural light and blinds to control the entry of light and allow sleep. Full beds with side tables to leave glasses, bleeps, phones, etc. Light sources for each bed with light adjustment, and temperature control. Rooms should be equipped with sufficient linen. There should be noise control through sound-absorbent materials and noise-isolating doors and windows. Personalisation of the space, noticeboards to hang photos of family and friends, posters, drawings by children, etc.

C.2.2. Adequate communication facilities

A direct line phone, as a minimum

C.2.3. Complete bathrooms

Equipped with showers and mechanical ventilation systems, segregated by sex.

C.2.4. Lockers to leave personal possessions

D. FAMILY AREA

D.1. Signposting

Appropriate and visible signposting of rooms, indicating access routes, and maintaining the aesthetic design established in the unit. *(See: A.1.3. Ensure privacy)*

D.2. Waiting rooms-Living rooms

Like the patient and staff areas, the family area will be a space where care will be taken to ensure proper distribution, circulation, functionality, aesthetics and comfort.
See A) patients' area, B) treatment area and C) administrative and staff area.
Ensure "living rooms" instead of "waiting rooms".
Substitute cold, depersonalised rooms for welcoming, friendly and warm spaces, thus creating a homely atmosphere. In this way the family will feel welcomed and their stress levels will be lowered
Attempts must be made to make these spaces dynamic so that relatives can be more integrated and involved, getting rid of the passive state often imposed upon them. One dynamic intervention could be to carry out the "ICU relatives school" in the room.
The waiting room must be equipped with:

- *Sufficient seating (1'5 – 2 chairs per ICU bed)*
- *Side tables and large table for group activities*
- *Toilets (segregated by sex) with disabled access*
- *Food and drinks dispensers*
- *Electric sockets to charge phones, tablets and mobile devices*
- *Wi-Fi connection*
- *Education material on the ICU and the medical centre*
- *Presence of a television to be discussed for each unit (educational programmes)*
- *Access to information-sharing rooms with professioals, which can be accessed without going through the waiting room.*

D.3. Appropriate furniture and privacy

The furniture installed in the family area must fulfil requirements of health and safety and ergonomics proposed for patients and staff. (See: A) PATIENTS' AREA and C) ADMINISTRATIVE AND STAFF AREA). We must ensure that each family can have "its space" to wait, reflect, rest, communicate with others…For this reason privacy must especially be taken into account. It is important to maintain communication policies in conditions of privacy, meaning it must be insisted that there exist an office dedicated to information-sharing, preferably with direct access from th waiting room.

D.4. 'Goodbye' room

A room where a terminal patient can be accompanied in conditions of privacy, without pressures of time or space, to enable the start of the healthy grieving process. This space should be conveniently signposted from the outside, in a quiet area, and prepared to contain: medicinal gases for the terminal stage, armchair, seats, friendly design and aesthetics, a small amount of accompanying material, such as books on bereavement, a single-use camera and box to collect memories. Natural light is recommended, as well as a visual connection with the outside world.
This room can omitted in the case of individual compartments with adequate furniture and conditions of privacy.

D.6. Rooms for relatives in highly critical situations

All ICUs should have a resting room for relatives of at least 20m^2 for every 8 beds where relatives who spend long periods of time accompanying patients can rest, relax, entertain themselves and attend to personal hygiene. This room is especially important in PICUs and NICUs where parents accompany their children during the night and especially when parents or relatives have their home in another city or far from the hospital.
The "ICU open doors" policy must ensure adequate conditions. The rooms could have sofas, beds, lockers, telephones, etc. with the hospital taking responsibility for cleaning and laundry. A bathroom (segregated by sex) should be considered for personal hygiene.

E. SPECIFIC FEATURES OF NEONATAL ICUs (NICUs)

As stated in the European Charter for children in hospital (1986), the baby has *"the right to be accompanied by his/her parents, or by the person who substitutes them, the maximum time possible during his/her stay in hospital, not as passive spectators but as active elements in hospital life. (…)".*

Through respect at all times of the mother-baby unit, we ensure not only the creation of the parental bond, optimal care during admission, and reduction of the stay in hospital, but also increase parental security for the phase that follows the stay in hospital. And at the same time, this reduces patient readmissions and the possibility that the mother will suffer depression. For these reasons it is paramount that spaces are adjusted to these processes.

Specific characteristics for the planning of NICUs

1. **Specific patient characteristics**
   New-borns and small babies are especially vulnerable, are at a crucial stage in development and highly susceptible to the world around them. Their communication system is very different from that of adults (very few hospitals have implemented the NIDCAP

programme which focuses on ‘deciphering’ the language, and in so doing the needs, of the baby in order to be able to adjust and optimise in a personalised manner the healthcare treatments and processes).
With patients who are premature babies, especially in the case of severe prematurity, he/she has experienced an abrupt termination of the pregnancy and, therefore, of the natural in utero development process, and enters into the NICU with his/her body not yet fully formed.

Definition of the type of patient in the NICU:
It is accepted that the neonatal period, from the healthcare perspective, ranges from the first 28 days of life in in births brought to term, to 46 weeks of postmenstrual age in premature births. However, on occasions hospitalisation in the neonatal unit can extend longer than this period depending on the pathological condition and the size of the patient.

2. **Specific characteristics of the carer**
In the NICU mothers and fathers, far more than simply accompanying the patient, are rather his/her primary carers and are active elements within the Unit, assuming a great quantity of care duties, which in adult ICUs tend to be carried out by healthcare staff.
The mother as primary carer finds herself, furthermore, in an especially vulnerable state, and even more so when the recent labour and birth have not gone as expected, on both an emotional and a physical level. On many occasions the mother is also a patient and inmate, and can even by going through a postoperative process and everything that this entails. She therefore also needs to be cared for in a special way during her admission, in order to encourage her recovery. Thus, to the postpartum process is added the trauma of the baby’s admission, sometimes after a difficult birth.

3. **Specific characteristics of the environment**
The atmosphere of the NICU must come as close as possible to an environment with intrauterine conditions. It is impossible to recreate these exactly, but integrating the mother (and the family) as primary and active carers and paying attention to environmental factors is an essential step.

Annexe IX. Limitation of life support treatment

Limitation of life support treatment (LLST), also known as adaptation of life support treatment, is the decision to restrict or remove therapeutic measures given the futility of these measures, once the inflexion point in the patient’s progress and prognostic has been put into objective terms *(figure 1).*

LLST is considered an appropriate and necessary clinical practice. The term substitutes that of Limitation of Therapeutic Effort given that it is not limited to life support treatment or implies that the ‘effort’ to treat stops. The therapeutic goal is adapted or tailored to the person in question, and is therefore transferred to other clinical fields (sedation, analgesia, psychological support, care for the family, hygiene measures, etc.)

Basic principles of LLST

1. The LLST decision must be adapted to current medical knowledge, as far as possible in medicine based on scientific evidence. Before reasonable doubt, the practice of conditional intensive treatment is recommended.
2. Patients of sound mind have the right to accept or reject any treatment. For this reason, whenever possible, the wishes of the patient will be taken into account when LLST is established. When the patient is not of sound mind, LLST must take into account the existence of previously documented instructions (last will and testament) or the opinion of the representative, if one has been assigned. If these do not exist, the decision must be taken in relation to “substitutive judgement” or if this is not possible in “the patient’s best interests”. In the particular case of children, and considering article 9 of law 41/2002 (patient autonomy), the consent to or rejection of treatment is made on the patient’s behalf up to 12 years of age. From 12 to 16 years of age by representation after hearing the minor’s opinion- unless he/she has the intellectual and emotional capacity to understand the significance of the intervention, in which case the patient can decide for his/herself. Finally from age 16 onwards or in emancipated minors, consent will be made by the patient with attention to the same conditions as will the adult patient.
3. In cases of high-risk interventions, according to the criteria of the physician, the parents will be informed and their opinion taken into account when making the corresponding decision. When the decision is made on the patient’s behalf this will “always be in the patient’s best interests and respecting his/her personal dignity”. In other words: their capacity to act, albeit not fully, is recognised.
4. The decision must be discussed collectively (doctors and nurses) and made as a consensus. In time-sensitive cases the LLST decision will have to be made on an individual basis, but it is recommended that it be discussed by the team afterwards. In case of doubt it is advised to begin or continue treatment without modifications.

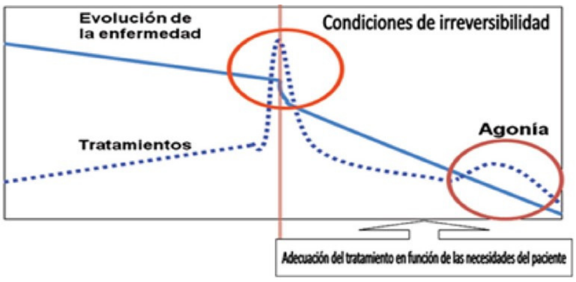

Figure 1: Identification of the inflexion point in the patient’s progress and start of adaptation of treatment according to the patient’s needs
Translation of terms used on graph:
Evolución de la enfermedad= Development of the illness
Tratamientos= Treatment
Condiciones de irreversibilidad= Conditions of irreversibility
Agonía= Agony
Adecuación de tratamiento en función de las necesidades del paciente= Adaptation of treatment according to patient’s needs

5. Relatives or legal representatives must always be consulted with, in an attempt to reach an agreement with them in the sense of respecting the patient's wishes. Under no circumstances must the family be made responsible for making the decisions.
6. In case of lack of agreement between the parties involved (the healthcare professionals and/or family or legal representative), it is highly convenient to consider the recommendation of the centre's Committee for Healthcare Ethics, which will be in the clinical history.
7. Once the decision to omit or remove life support treatment, it is obligatory not to abandon the patient during the dying process, and guarantee him/her a dignified death with the appropriate palliative treatments.
8. The decisions to omit or remove life support treatment must show in the clinical history in a specific form that collects LLST orders.

Basic principles of bioethics

The basic principles of bioethics, which are those criteria that serve to support and justify ethical precepts and values in the biohealth field, support decision-making in the context of LLST. In summary, these are:

- ***Nonmaleficence:*** Keeping life support treatment in place without reasonable expectations of recovery can extend the patient's suffering and that of his/her relatives. For this reason, not everything that is technically possible will be necessary and ethically acceptable. All clinics have the clear obligation not to anything that is contraindicated. The problem is non-indication, which without reaching clear contraindication, is sometimes dubious.

- ***Justice:*** The assigning of resources, which are always scarce, to patients without well-founded expectations of survival can leave out patients in greater need of them, which could be an unfair action. This is the case, even if efforts to carry out a treatment are not contraindicated, especially if we are acting within a public system which cannot be obliged to provide or finance a treatment that is not indicated, or which is expensive or scarce, even if the patient demands it.

- ***Autonomy:*** What is beneficial for the patient should be defined by the patient through informed consent; in case of incapacity it should be defined by a last will and testament document, previous instructions, or even through the expression of his/her values and wishes as relayed through loved ones or a legal representative.
  - *Indication corresponds to the professional*
  - *Choice corresponds to the patient or his/her representative. In this last case the question to consider is not what the family thinks is best for the patient, but what the patient would want.*

  Respect for the exercising of the patient's autonomy has a number of implications for the doctor. He/she must:
  - *Give the patient all the relevant information so that he/she can make decisions with knowledge of cause.*
  - *Facilitate communication, using language that is easy to understand, and knowing how to listen with the attitude of wanting to understand the patient's situation, wishes and preferences.*
  - *Give information on the diagnosis, prognosis and resulting quality of life resulting from the proposed treatment unless the patient asks for this not to be done.*
  - *Present the different treatment alternatives impartially*
  - *Respect both confidentiality, and the promises or compromises made with the patient.*

- ***Beneficence:*** Life support measures are not always in the patient's "best interest", since it is only acceptable to undergo them if there are not useless and the expected benefit outweighs the discomfort and risk. In general, the analysis of the principle of nonmaleficence should be carried out in conjunction with that of beneficence, so that utility always prevails over harm in the decision made. For professionals who work with and for critical patients the requirement of beneficience/nonmaleficence has a number of implications, since it obliges them to:
  a. *Have rigorous and continuously updated theoretical and practical training in order to work in the profession*
  b. *Seek or investigate new diagnostic and therapeutic procedures and improve the existing ones to make them less invasive and painful for the patient*
  c. *Avoid what is called defensive medicine, not multiplying unnecessarily the diagnostic procedures.*
  d. *Cultivate an attitude that is conducive to a proper relationship with the patient.*

Acronyms. Initials

- ***AASTRE:*** Translates to: Random Security Checks in Real Time
- ***ACFV:*** Translates to: Adaptation of End-of-Life Care
- ***AEoLC:*** Adaptation of End-of-Life Care
- ***BIS:*** Bi-spectral Index
- ***CAA:*** Translates to: Augmentative-alternative communication
- ***CAPD:*** Cornell assessment Paediatric Delirium
- ***CAM-ICU:*** Confusion Assessment Method for Intensive Care Units
- ***CCD:*** Translates to: Family and development centred care
- ***CDPM:*** Translates to: Questionnaire on burnout in the medical professional
- ***CP:*** Translates to: Palliative Care (PC)
- ***CPR:*** Cardiopulmonary Resuscitation
- ***CRM:*** Crisis Resource Management
- ***EVA:*** Translates to: Visual Analogue Scale (VAS)
- ***EVN:*** Translates to: Verbal Numerical Rating Scale (VNS)
- ***ESCID:*** Translates to Behavioural Pain Assessment Scale
- ***HR:*** Human Resources
- ***HU-CI:*** Translates to: Humanisation of Intensive Care (project in question)
- ***ICDSC:*** Intensive Care Delirium Screening Checklist
- ***ICU:*** Intensive Care Unit
- ***LLST:*** Limitation of Life Support Treatment (in Spanish *LTSV*: *Limitación de Tratamiento Soporte Vital*)
- ***MV:*** Mechanical Ventilation
- ***NICU:*** Neonatal Intensive Care Unit
- ***NIDCAP:*** Newborn Individualised Developmental Care and Assessment Programme.
- ***PAED:*** Paediatric Anaesthesia Emergence Delirium Scale
- ***pCAM-ICU:*** Paediatric Confusion Assessment for Intensive Care Units
- ***PICS:*** Post-Intensive Care Syndrome
- ***PICU:*** Paediatric Intensive Care Unit
- ***RASS:*** Richmond Agitation-Sedation Scale
- ***RCP:*** Translates to: Cardiopulmonary resuscitation (CPR)
- ***RRHH:*** Translates to: Human Resources
- ***SAS:*** Sedation-Agitation Scale
- ***SBAR:*** Situation, Background, Assessment and Recommendation
- ***SEEIUC:*** *Sociedad Español de Medicina Intensiva, Crtítica y Unidades Coronarias* (Spanish Society of Intensive and Critical Medicine and Coronary Units)
- ***SIC:*** Translates to: Clinical Information Systems
- ***SMI:*** Translates to: Intensive Medicine Service
- ***VAS:*** Visual Analogue Scale
- ***VNRS:*** Verbal Numerical Rating Scale
- ***WHO:*** World Health Organisation

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Med Intensiva. 2018;42(6):337–345

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ORIGINAL

Principales demandas informativas de los familiares de pacientes ingresados en Unidades de Cuidados Intensivos

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Recibido el 18 de julio de 2017; aceptado el 13 de septiembre de 2017
Disponible en Internet el 3 de noviembre de 2017

PALABRAS CLAVE
Comunicación;
Cuidados críticos;
Toma de decisiones;
Familia;
Conocimientos, actitudes y práctica en salud;
Evaluación de necesidades;
Relaciones profesional-familia;
Planificación de atención al paciente

Resumen

Objetivo: Elaborar un catálogo de demandas informativas priorizadas por los familiares, conocer qué profesionales consideran estos que pueden responder a estas demandas y explorar las diferencias de criterio entre familiares y profesionales.
Diseño: Análisis cualitativo de validación de contenido; estudio descriptivo transversal.
Ámbito: Cuarenta y una UCI españolas.
Participantes: Familiares, médicos y enfermeras/os de pacientes críticos.
Intervención: De un listado inicial de preguntas extraído de revisión de la literatura, médicos, enfermeras/os y familiares de pacientes críticos incorporaron cuestiones que consideraron no incluidas. Tras análisis de validación de contenido, se obtuvo un nuevo listado que fue valorado nuevamente por los participantes para determinar el nivel de importancia que asignaban a cada pregunta y qué profesional consideraban adecuado para responderla.
Resultados: Cuestiones más importantes para los familiares: preocupación por la situación clínica, medidas a tomar, pronóstico e información. Existió coincidencia entre familiares y profesionales en las cuestiones prioritarias para las familias. Existieron diferencias significativas en la importancia dada a cada pregunta: entre médicos y familiares (72/82 preguntas) y entre enfermeras/os y familiares (66/82 cuestiones) ($p < 0,05$). Para los familiares, el 63% de las preguntas podrían ser contestadas por médicos o enfermeras/os indistintamente, el 27% preferentemente por los médicos y 10% por las enfermeras/os.

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https://doi.org/10.1016/j.medin.2017.09.007

Conclusiones: Las cuestiones más relevantes para las familias fueron pronóstico y gravedad, pero también la necesidad de información. Los profesionales sanitarios tendemos a subestimar la importancia de muchas de las cuestiones que preocupan a las familias. Los familiares consideran que la mayoría de sus inquietudes pueden ser resueltas indistintamente por médicos o enfermeras/os.

KEYWORDS
Communication;
Critical care;
Decision making;
Family;
Health knowledge, attitudes, practice;
Needs assessment;
Professional-family relations;
Patient care planning

Main information requests of family members of patients in Intensive Care Units

Abstract

Objective: To compile an inventory of information requests prioritized by the family members, to find out which professionals them consider able to respond these requests, and to explore the differences in perception between family members and professionals.
Design: Qualitative analysis of content validation and descriptive cross-sectional study.
Scope: 41 Spanish ICU.
Participants: Relatives, physicians and nurses of critical patients.
Intervention: From an initial list of questions extracted from literature review, physicians, nurses, and relatives of critical patients incorporated issues that they considered not included. After analyzing content validity, a new list was obtained, which was again submitted to the participants' assessment to evaluate the level of importance that they assigned to each question and which professional they considered appropriate to answer it.
Results: most important questions for the relatives: concern about the clinical situation, measures to be taken, prognosis and information. There was a coincidence between relatives and professionals in the priority issues for families. There were significant differences in the importance given to each question: between doctors and relatives (72/82 questions), and between nurses and relatives (66/82 questions) ($P<.05$). For the relatives, 63% of the questions could be answered by doctors or nurses, 27% preferably by doctors and 10% by nurses.
Conclusions: The most relevant issues for families were prognosis and severity, but also the need for information. Healthcare professionals tend to underestimate the importance of many of the questions that concern families. Relatives feel that most of their concerns can be resolved either by doctors or nurses.

Introducción

El hecho de que una gran parte de los pacientes que son atendidos en las Unidades de Cuidados Intensivos (UCI) estén incapacitados para comunicarse obliga a considerar a sus familiares como los interlocutores principales en el proceso de información[1]. Existen multitud de estudios[2-5] que indican que los familiares del paciente crítico tienen como necesidades prioritarias tanto la información como la cercanía con el paciente y con el equipo, siendo esta necesidad de información especialmente relevante en los familiares de pacientes que han fallecido o están a punto de fallecer[6].

La información clara y en términos comprensibles ayuda a transitar desde una fase inicial de desconcierto hacia un mayor control sobre la situación[7], a comprender la situación del paciente y a promover la implicación en la toma de decisiones al contar con elementos que favorecen poder optar entre distintas opciones[8].

El proceso de información a los familiares en la UCI es mejorable. La literatura científica, tanto del ámbito español[9,10] como internacional[8,11], apunta en esa dirección. Algunos trabajos recientes ponen de manifiesto que las dificultades identificadas en la primera década del siglo XXI, siguen sin estar resueltas, como por ejemplo, la falta de trabajo en equipo, el papel de las enfermeras/os que no saben bien de qué pueden informar o la necesidad de alcanzar consensos respecto a los contenidos de la información[12,13].

Estas dificultades son muy relevantes e impactan directamente en la calidad del proceso de informar. En las UCI españolas, el médico es el profesional que informa de manera «oficial»[14,15]. Esta información se suele dar solo una vez al día[15] en un momento fijado para ello. Se ha visto que en un elevado porcentaje de casos esta información no se comprende[8] o se comprende mal[16]. Generalmente, se pone el énfasis en aspectos técnicos y en los temas que los profesionales consideran relevantes, que pueden coincidir o no con las preferencias o necesidades de los familiares. Por ello es muy probable que a los familiares les surjan dudas a posteriori y busquen resolverlas con otros recursos, como por ejemplo preguntando a la enfermera/o, que tampoco tiene muy claro sobre qué aspectos puede o debe informar.

Para poder resolver estas dificultades mencionadas, es necesario que el equipo de salud tenga un cierto grado de consenso acerca de cuál debe ser el contenido de la información y de cómo deben gestionarlos los diferentes profesionales[17]. En este sentido, otros autores han descrito algunas preguntas planteadas frecuentemente por los familiares de los pacientes críticos[18]. Estas investigaciones constituyen un buen punto de partida para continuar indagando y precisando los contenidos de la información que demandan los familiares.

El presente proyecto tiene el ánimo de contribuir a esta línea de trabajo elaborando un catálogo de demandas informativas, priorizadas por los propios familiares, que respalde la práctica clínica. Por una parte, conocer estas demandas puede ayudar a los profesionales a estructurar el mensaje a trasmitir a los familiares para que sea lo más significativo y adecuado posible para ellos. Y por otra, conocer qué profesionales consideran los familiares que pueden responder a sus demandas informativas nos servirá para definir las competencias informativas de los distintos profesionales que intervienen en el proceso asistencial.

Para ello, se marcaron los siguientes objetivos:

- Definir las principales demandas informativas de los familiares de los pacientes ingresados en UCI.
- Explorar las divergencias en la percepción de las demandas informativas entre familiares, médicos y enfermeras/os.
- Identificar qué profesionales son considerados como más adecuados para aportar cada una de las informaciones demandadas.

Pacientes y métodos

Diseño

Se utilizaron varias metodologías adaptadas a las distintas fases del estudio, combinando el análisis documental, con un análisis cualitativo de validación de contenido en una primera fase y finalizando con un estudio descriptivo transversal.

Ámbito

Estudio multicéntrico en el que han participado 41 UCI repartidas por toda España contando con 66 profesionales (médicos y enfermeras/os de cada una de ellas), que actuaron como coordinadores de la recogida de datos en sus unidades. El trabajo de campo se llevó a cabo en diferentes fases entre septiembre del 2015 y marzo del 2016.

La población de estudio la componían los profesionales de UCI (médicos y enfermeras/os) y familiares o allegados de pacientes ingresados en ese momento en las unidades participantes. Se realizó un muestreo no probabilístico por conveniencia, en el que los participantes se seleccionaron sobre la base de los siguientes criterios de inclusión:

- Familiar o allegado que ejercía las funciones de cuidador principal, que aceptó participar en el estudio.
- Familiares de pacientes ingresados más de 48 h.
- Enfermeros con una experiencia mayor de 6 meses en unidades de críticos.
- Médicos con experiencia mayor de 6 meses en unidades de críticos.

Fueron los coordinadores del estudio en cada centro los que, aplicando los anteriores criterios de inclusión, seleccionaron a los participantes (profesionales y familiares).

Variables

Las variables de estudio fueron los temas y preguntas surgidos tanto de la revisión de estudios previos (de la que solo se pudo seleccionar el realizado por Peigne et al.[18]), como de las aportaciones de profesionales y familiares de pacientes ingresados en las UCI en el período de estudio.

Procedimiento

Una vez realizado el reclutamiento de las unidades, y confeccionado el documento con el listado de preguntas recabadas de la literatura susceptibles de ser incluidas en los procesos informativos en la UCI, el estudio se desarrolló en varias fases.

- *Fase 1:* a través de los coordinadores se proporcionó a todos los participantes un documento con un «Listado inicial de preguntas». Dicho listado recogía 21 cuestiones seleccionadas como importantes para los familiares en un estudio previo realizado en Francia[18].
- Los coordinadores seleccionaron a 20 participantes en cada unidad (10 profesionales —médicos y enfermeras/os— y 10 familiares/allegados) y distribuyeron entre ellos dicho listado con el objeto de que cada participante añadiera las cuestiones que considerasen que no se incluían en el listado propuesto por los investigadores. Los coordinadores de cada unidad introdujeron las preguntas obtenidas en sus unidades en una base de datos creada a tal fin.
- De las 205 enfermeras/os seleccionadas, añadieron alguna propuesta el 100%, mientras que de los 205 médicos seleccionados añadieron alguna pregunta 151 (74%). Agrupando a médicos y enfermeras/os, los 410 profesionales seleccionados, añadieron alguna propuesta 356 (87%). De los 410 familiares seleccionados, añadieron alguna propuesta 203 (50%); el 50% restante creía recogidas sus cuestiones en el documento inicial. Tres investigadores analizaron de manera independiente las 2.095 preguntas, propuestas por las 205 enfermeras/os, 203 familiares y 151 médicos, y llevaron a cabo un análisis cualitativo de validación de contenido[19] eliminando las redundancias y sintetizando aquellas cuestiones que no eran generalizables a casos habituales. Se trianguló dicho análisis para alcanzar un consenso[20]. A partir de este consenso, se generó el segundo documento denominado «Listado final de preguntas», que contenía 82 cuestiones susceptibles de ser tenidas en cuenta en los procesos informativos agrupadas en 8 categorías (fig. 1).
- *Fase 2:* el «Listado final de preguntas» se envió de nuevo a los coordinadores para que profesionales y familiares marcaran el grado de importancia que tenía cada una de las cuestiones del documento. Se les pidió que eligieran una puntuación para cada una de ellas usando una escala tipo Likert con un rango de 1 a 9, donde 1 se correspondía con «poco importante» y 9 «muy importante». Además, en esta fase se les pidió que indicaran qué profesional

Figura 1 Categorías presentes en el «Listado final de preguntas». Las 82 cuestiones fueron agrupadas en 8 categorías. A continuación del nombre de la categoría, el número de preguntas que contenía cada una.

consideraban adecuado para resolver cada una de las 82 preguntas, pudiendo responder «médico», «enfermera/o» o «ambos». En esta fase se recibieron 654 respuestas, de las cuales 287 fueron de familiares (70%), 190 de enfermeras/os (92%) y 177 de médicos (86%), que se incorporaron a la base de datos general.

Análisis de datos

En la fase 1 se realizó un análisis de contenido de tipo inductivo, sintetizando las 2.095 preguntas recibidas. Esa síntesis produjo el listado de 82 preguntas que se utilizó en la fase 2. Un segundo análisis de contenido, más analítico, las agrupó bajo temas más amplios. El rigor se aseguró a través de la triangulación de investigadores.

Tras la segunda fase se ordenaron todas las cuestiones mediante medidas de frecuencia y de tendencia central de las puntuaciones obtenidas para cada una de las 82 preguntas (variables del estudio). Con ello se estableció un listado priorizado sobre la base de la media de las puntuaciones obtenidas en cada una de las variables estudiadas tanto desde la perspectiva de los familiares como de los profesionales.

Para analizar la diferencia entre las percepciones de familiares y profesionales se recurrió al test no paramétrico U de Mann-Whitney para distribuciones de datos que no siguen criterios de normalidad. Se consideró significación estadística para una $p < 0{,}05$.

Finalmente, se usó estadística descriptiva, mediante porcentajes y distribución de frecuencias para ordenar las distintas preguntas sobre la base de qué profesionales piensan los participantes que pueden contestar cada una de ellas. Dicho análisis se realizó así mismo considerando la perspectiva de familiares y profesionales.

Aspectos éticos

Se garantizó el cumplimiento de las leyes y normas sobre protección de datos de carácter personal, manteniéndose la anonimidad y la confidencialidad de los datos registrados. Se solicitó consentimiento informado a todos los participantes. El tratamiento de la información obtenida no permitió la identificación del centro, ni la del participante. El proyecto fue aprobado por el Comité Ético Provincial de Investigación Clínica (CEIC) de Málaga con dictamen favorable del 25 de septiembre del 2015 y por cada uno de los CEIC locales.

Resultados

El primer objetivo del estudio fue definir las principales demandas informativas de los familiares de los pacientes ingresados en una UCI. Según el orden de prioridad otorgado por ellos a las 82 preguntas del listado final, las 20 más importantes hacen referencia a las posibilidades de supervivencia, evolución esperable y posibles secuelas (1.ª, 2.ª, 3.ª, 7.ª, 9.ª, 10.ª y 12.ª en el orden de prioridad), a la necesidad y gestión de la información (4.ª y 8.ª), al plan terapéutico (5.ª, 14.ª, 15.ª, 17.ª, 18.ª), al estado y bienestar del paciente (6.ª, 11.ª, 13.ª, 19.ª, 20.ª) y a la participación familiar (16.ª). En la tabla 1 (disponible en su totalidad en el material electrónico suplementario [anexo 2]) puede verse la clasificación de las preguntas según el orden de prioridad otorgado por los familiares sobre la base de la puntuación media que han obtenido, relacionado en las siguientes columnas con el orden de prioridad según enfermeras/os y médicos, y el tipo de demanda informativa a que hace referencia cada pregunta. Con respecto al segundo objetivo (explorar las divergencias en la percepción de las demandas informativas entre familiares, médicos y enfermeras/os), aunque sin coincidir exactamente en el orden de importancia dado por las familias, el 85% de las 20 principales cuestiones sugeridas por los familiares aparecen también entre las 20 más importantes para los médicos y el 75% en el caso de las enfermeras/os. Al comparar la puntuación de importancia que se dio a cada pregunta, se observan diferencias significativas ($p< 0{,}05$) entre las puntuaciones otorgadas por familiares y médicos en 72 cuestiones (87,8%) de las 82 que componen el listado, siendo más frecuente esta diferencia a la baja. Lo mismo se aprecia en 66 cuestiones (80,5%) cuando comparamos las puntuaciones de familiares y enfermeras/os. Aparecen también diferencias en las valoraciones realizadas por médicos y enfermeras/os entre sí, siendo estas estadísticamente significativas en 53 preguntas (64,5%) de las 82 totales. En la figura 1 del material suplementario se refleja la importancia otorgada a cada una de las cuestiones por familiares, enfermeras/os y médicos. Las preguntas en las que existe una mayor divergencia de puntuación se pueden observar en la tabla 2.

Tabla 1 Listado de las 20 primeras preguntas por orden de importancia para los familiares, relacionado con el orden de importancia conferido a esas mismas cuestiones por enfermeras/os y médicos

Puntuac. familiar	N.° pregunta	Preguntas	Orden fam.	Orden enferm.	Orden med.	Categorías temáticas
8,721	12	¿Sobrevivirá?	1	1	3	Evolución/secuelas
8,588	7	¿Es grave lo que está pasando?	2	3	1	Evolución/secuelas
8,525	11	¿Qué probabilidades tiene de recuperarse?	3	5	5	Evolución/secuelas
8,427	37	¿Puedo estar seguro de que me informarán si pasa algo?	4	9	16	Gestión de la información
8,424	54	¿Qué pruebas se han realizado y cuáles han sido los resultados?	5	11	10	Plan terapéutico
8,36	3	¿Cómo está?	6	2	2	Bienestar del paciente
8,332	8	¿Cómo será la evolución previsiblemente?	7	8	6	Evolución/secuelas
8,307	36	¿Cómo me mantendrán informado de lo que ocurra?	8	12	15	Gestión de la información
8,298	10	¿Le quedarán secuelas?	9	7	7	Evolución/secuelas
8,284	9	¿Volverá a hacer vida normal?	10	10	9	Evolución/secuelas
8,268	6	¿Está sufriendo?	11	4	4	Bienestar del paciente
8,244	15	¿Cuándo podrá respirar por sí mismo?	12	16	19	Evolución/secuelas
8,196	17	¿Tiene dolor?	13	6	8	Bienestar del paciente
8,151	80	Si no hubiera más opciones de tratamiento, ¿qué medidas se tomarían?	14	22	13	Plan terapéutico
8,122	56	¿Cuáles son los planes a seguir?	15	26	17	Plan terapéutico
8,086	76	¿Qué tengo que saber para cuidarle bien cuando esté en casa?	16	57	58	Participación familiar
8,061	48	¿Se está haciendo todo lo posible?	17	13	12	Plan terapéutico
8,036	53	¿Qué tratamientos y qué otros cuidados está recibiendo?	18	40	42	Plan terapéutico
8,014	4	¿Cómo se siente mi familiar?	19	23	20	Bienestar del paciente
7,972	39	¿Es consciente de lo que está pasando?	20	21	23	Bienestar del paciente

En la primera columna figura la puntuación media otorgada a cada cuestión por los familiares. En la segunda y tercera columna el número de la pregunta en el cuestionario inicial y la pregunta como tal. En las columnas 4.ª, 5.ª y 6.ª se presenta en número de orden por puntuación otorgada por cada grupo participante (en gris las 10 preguntas más importantes según los familiares y en color salmón las siguientes 10 preguntas por orden de importancia, también según las familias). En la última columna se dispone la categoría temática en la que se clasifica cada pregunta.

Analizando el nivel de prioridad atribuido a las distintas cuestiones por cada uno de los grupos, observamos que existen diferencias considerables en algunos casos si comparamos la opinión de los familiares con la de médicos y enfermeras/os, apreciándose un patrón más coincidente entre médicos y enfermeras/os (figura 2 del material suplementario).

En lo que se refiere al tercer objetivo (qué profesional, médico o enfermera/o, se considera adecuado para responder a cada una de las preguntas), globalmente, la opción de «ambos» es la mayoritaria (54%), seguida de «solo por el médico» (28,2%) y «solo por la enfermera/o» (17,8%). Se aprecian algunas diferencias si tenemos en cuenta las opiniones por separado de los 3 colectivos

Tabla 2 Listado de preguntas con mayor diferencia de puntuación entre familiares y enfermeras/os, familiares y médicos, y médicos y enfermeras/os

Mayores diferencias entre familiares y enfermeras/os

Diferencia puntuación	Pregunta
1,63	¿Qué especialidad tienen los profesionales que atienden a mi familiar?
1,22	¿Qué tengo que saber para cuidarle bien cuando esté en casa?
1,09	¿Recibe un buen trato por todo el personal de la UCI?
−0,95	¿Por qué tiene sujetas las manos?
−1,08	¿Pueden entrar familiares menores de edad?
−1,78	¿Puede venir el sacerdote a verle?

Diferencia promedio entre las puntuaciones de familiares y enfermeras/os: 0,18961254

Mayores diferencias entre familiares y médicos

Diferencia puntuación	Pregunta
2,02	¿Qué especialidad tienen los profesionales que atienden a mi familiar?
1,94	¿Qué tengo que saber para cuidarle bien cuando esté en casa?
1,80	¿Recibe un buen trato por todo el personal de la UCI?
−0,50	¿Debo avisar a otros familiares?
−0,56	¿Pueden entrar familiares menores de edad?
−1,09	¿Puede venir el sacerdote a verle?

Diferencia promedio entre las puntuaciones de familiares y médicos: 0,72334875

Mayores diferencias entre enfermeras/os y médicos

Diferencia puntuación	Pregunta
1,43	¿Qué significan las alarmas que suenan?
1,25	¿Qué significan los datos que aparecen en el monitor?
1,16	¿Para qué sirven los tubos y máquinas a las que está conectado?
0,05	¿Es grave lo que está pasando?
−0,02	¿Habría otras alternativas en otro lugar?
−0,24	¿Debo avisar a otros familiares?

Diferencia promedio entre las puntuaciones de enfermeras/os y médicos: 0,53373621

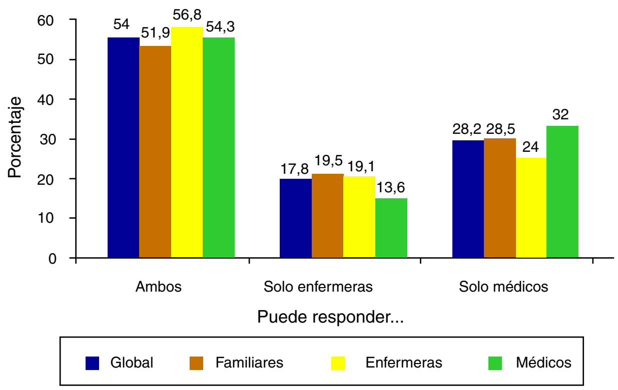

Figura 2 Profesional que se considera adecuado para responder a cada pregunta según la opinión de cada grupo participante y globalmente.

que respondieron: familiares, enfermeras/os y médicos (fig. 2).

Si analizamos las opiniones de los familiares exclusivamente (tabla del material suplementario), en 52 (63,4%) de las preguntas, la mayoría de los participantes consideran que pueden ser tanto médicos como enfermeras/os los profesionales adecuados para contestarlas. Para 22 (26,8%) de las preguntas, consideran la mayoría de los familiares que debe ser el médico el responsable de solucionar sus dudas y en 8 (9,8%) consideran que la responsable debería ser la enfermera/o. De las 20 preguntas que los familiares consideran más importantes, 10 de ellas piensan que deberían ser contestadas por los médicos y 10 por ambos, médicos o enfermeras/os.

Discusión

Uno de los aspectos que con mayor frecuencia se recoge en la literatura como fuente de insatisfacción para los familiares es la percepción de una deficiente o mala comunicación con los profesionales sanitarios. Existen importantes deficiencias formativas de los profesionales en cuanto a procesos comunicativos y como consecuencia la comunicación con las familias suele realizarse siguiendo los modelos de los colegas más veteranos y sobre la base de sus propias experiencias y equivocaciones[21].

Además de mejorar el cómo, es necesario conocer el qué, es decir, cuáles son las prioridades informativas desde el punto de vista de quiénes van a recibirlas. Este trabajo muestra que los familiares destacan los temas sobre supervivencia, secuelas y su impacto. Desean saber además cómo se les va a ir informando, cómo se va a controlar la situación del paciente, cómo se va a asegurar el bienestar del paciente y qué opciones se plantean. Conforme se baja en la jerarquía, las demandas son más concretas y se refieren a cómo va a ser el plan terapéutico, qué debe hacer la familia o cómo son los dispositivos que se están empleando, entre otros.

Los resultados presentados revelan que familiares y profesionales percibimos las demandas informativas de manera distinta. Por tanto, se aporta conocimiento acerca de cómo de importante son los temas para unos y para otros. Por una parte, profesionales y familiares jerarquizan las prioridades informativas de manera diferente. Existe más coincidencia entre médicos y enfermeras/os y mayor divergencia entre médicos y familiares. Por otra, se detecta la tendencia en los profesionales a puntuar a la baja. O dicho de otra manera, para los familiares las cuestiones adquieren más importancia que para los profesionales. Esta diferencia puede tener una explicación en la preocupación y desconocimiento de las familias de determinadas situaciones que los profesionales tienen asumidas como cotidianas y que consideran que no revisten importancia en general desde un punto de vista clínico.

Por último, se contribuye al debate de quién y sobre qué cuestiones desean los familiares que les informen los diferentes profesionales. Los familiares consideran que gran cantidad de cuestiones relevantes para ellos pueden ser contestadas indistintamente por la enfermera/o o por el médico (en el 63% de las preguntas la respuesta sobre quién debía contestar a las cuestiones fue «ambos» para los familiares). De las preguntas que consideran que deben ser preferentemente contestadas por los médicos o por las enfermeras/os, atribuyen a los médicos aquellas cuestiones relacionadas con el pronóstico, secuelas, tratamiento y diagnóstico. Por otro lado, consideran a las enfermeras/os como los profesionales más adecuados para resolver preguntas relacionadas con cuidados, sensaciones, entorno y normas, entre otros. En consonancia con estos resultados, la guía de la Society of Critical Care Medicine de atención a familiares de pacientes críticos[17] afirma que la información debe ser una labor de equipo y se recomienda la información conjunta entre ambos profesionales. Sin embargo, en la práctica, se dan muchos factores relacionados con la legislación, la organización de los servicios, la formación y competencia profesional e incluso con intereses profesionales, que dificultan la información conjunta entre ambos profesionales.

Por ejemplo, en España la norma en la mayoría de las unidades hace recaer la responsabilidad de la información familiar en exclusiva sobre el médico, de forma que lo habitual suele ser que este informe solo, o médicos y enfermeras/os por separado, siendo muy escasas las unidades en las que médicos y enfermeras/os proporcionan información a los familiares de forma conjunta[14]. La enfermera/o suele desconocer qué información le ha sido proporcionada al familiar, por lo que para evitar contradicciones mide cautelosamente el discurso, aportando información breve y no comprometedora. A pesar de que existen iniciativas que intentan cambiar esta práctica[22,23], la enfermera/o ha tendido a ausentarse en el proceso informativo[24] e incluso a justificar que no forma parte de su competencia. Son frecuentes manifestaciones que restan importancia a la información y que rechazan la comunicación con los familiares[16,25].

Cabe señalar que un estudio de estas características debe generalizarse con cautela. Al comparar nuestros resultados con los de Peigne et al.[18], existe coincidencia en 9 de las 21 preguntas que se consideraron más importantes. Aunque en ambos trabajos aparecen preguntas sobre pronóstico, tratamiento e información, en el estudio francés aparecen preguntas sobre la implicación de las familias en los cuidados o en la toma de decisiones. Esta desigualdad puede tener origen en diferencias culturales de las poblaciones encuestadas o en diferentes políticas de información entre los 2 países que deben ser tenidas en cuenta.

Una comunicación de calidad requiere entrenamiento y la colaboración de un equipo que funcione adecuadamente[26]. Es preciso evaluar cómo se abordan estos aspectos en cada institución, qué herramientas usamos y cómo nos posicionamos cada uno de nosotros, revisando el papel que adoptamos en la comunicación con nuestros compañeros y con los pacientes y familiares. Resulta necesario también implementar las recomendaciones presentes en la bibliografía y evaluar los resultados de su implantación[27].

Adecuar la información y la comunicación de los profesionales sanitarios a las demandas y las necesidades de los familiares de los pacientes críticos ayudará a mejorar su percepción de la atención recibida y a afrontar mejor estos difíciles momentos.

Como limitaciones de nuestro estudio podemos encontrar que no se analizaron las respuestas sobre la base de los resultados clínicos obtenidos (supervivencia). Sería recomendable en futuras investigaciones analizar la diferencia entre la opinión de familiares de pacientes que sobrevivieron con respecto a aquellos cuyo familiar falleció. No se tuvo en cuenta en el presente estudio al valorar los resultados la diferencia de percepción que pudiese existir entre médicos adjuntos y residentes. Sería pues también recomendable para nuevos trabajos considerar las posibles diferencias entre sus aportaciones.

Conclusiones

Las cuestiones más relevantes para las familias hacen referencia al pronóstico y a la gravedad, pero también a la necesidad de recibir información. Aunque los profesionales sanitarios consideramos también esas cuestiones como prioritarias, tendemos a dar en general una importancia menor a las preocupaciones de los familiares y existe divergencia significativa en la prioridad de algunas de las inquietudes que manifiestan las familias.

Las familias consideran que gran parte de sus demandas informativas pueden ser satisfechas tanto por médicos como por enfermeras/os. Son, por tanto, necesarios comunicación y consenso entre los diferentes profesionales para proporcionar una información coherente y completa, para lo cual consideramos que es primordial suscitar el cambio en las políticas de información, promoviendo la información conjunta médico-enfermera/o.

Sería importante, por tanto, implementar herramientas entre los profesionales (formación en técnicas de comunicación, escucha activa, relación de ayuda) que nos permitan mejorar la relación con las familias.

Autoría

El promotor del estudio e investigador principal ha sido José Manuel Velasco Bueno, apoyado por el Equipo de Investigación del Proyecto HUCI (Humanizando los cuidados intensivos), que promovió el reclutamiento de los centros participantes.

Cada uno de los autores ha contribuido al diseño del estudio, a la búsqueda de la bibliografía, al análisis de los datos y a la discusión de los resultados.

Todos ellos han sido revisores del manuscrito en sus diferentes versiones y aprueban el trabajo final.

Conflicto de intereses

Conflicto de intereses de los autores: ninguno.

Agradecimientos

Deseamos agradecer la colaboración de todos los profesionales pertenecientes a las distintas Unidades de Cuidados Intensivos que han participado tanto como coordinadores locales del estudio, como a aquellos que han realizado sus aportaciones al mismo. Y lógicamente, a los familiares de los pacientes críticos, ingresados en esas unidades, que nos han aportado la parte que más nos importaba y que era su propia visión de la información que desean.

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Anexo 2. Material adicional

Se puede consultar material adicional a este artículo en su versión electrónica disponible en doi:10.1016/j.medin.2017.09.007.

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Intensive & Critical Care Nursing xxx (xxxx) xxx

Contents lists available at ScienceDirect

Intensive & Critical Care Nursing

journal homepage: www.sciencedirect.com/journal/intensive-and-critical-care-nursing

Research Article

Moral distress, emotional impact and coping in intensive care unit staff during the outbreak of COVID-19

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ARTICLE INFO

Keywords:
Anxiety
Coping
COVID-19
Depression
ICU staff
Moral distress
Nurses

ABSTRACT

Background: From the beginning, the COVID-19 pandemic increased ICU workloads and created exceptionally difficult ethical dilemmas. ICU staff around the world have been subject to high levels of moral stress, potentially leading to mental health problems. There is only limited evidence on moral distress levels and coping styles among Spanish ICU staff, and how they influenced health professionals' mental health during the pandemic.
Objectives: To assess moral distress, related mental health problems (anxiety and depression), and coping styles among ICU staff during the first wave of the COVID-19 pandemic in Spain.
Design: Cross-sectional.
Settings and participants: The study setting consisted of intensive care unit and areas converted into intensive care units in public and private hospitals. A total of 434 permanent and temporary intensive care staff (reassigned due to the pandemic from other departments to units) answered an online questionnaire between March and June 2020.
Methods: Sociodemographic and job variables, moral distress, anxiety, depression, and coping mechanisms were anonymously evaluated through a self-reported questionnaire. Descriptive and correlation analyses were conducted and multivariate linear regression models were developed to explore the predictive ability of moral distress and coping on anxiety and depression.
Results: Moral distress during the pandemic is determined by situations related to the patient and family, the intensive care unit, and resource management of the organisations themselves. intensive care unit staff already reached moderate levels of moral distress, anxiety, and depression during the first wave of the pandemic. Temporary staff (redeployed from other units) obtained higher scores in these variables ($p = 0.04$, $p = 0.038$, and $p = 0.009$, respectively) than permanent staff, as well as in greater intention to leave their current position ($p = 0.03$). This intention was also stronger in health staff working in areas converted into intensive care units (45.2%) than in normal intensive care units (40.2%) ($p = 0.02$). Moral distress, coupled with primarily avoidance-oriented coping styles, explains 37% (AdR^2) of the variance in anxiety and 38% (AdR^2) of the variance in depression.
Conclusions: Our study reveals that the emotional well-being of intensive care unit staff was already at risk during the first wave of the pandemic. The moral distress they experienced was related to anxiety and depression issues,

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https://doi.org/10.1016/j.iccn.2022.103206
Received 8 September 2021; Received in revised form 13 January 2022; Accepted 16 January 2022
Available online 21 January 2022

Please cite this article as: Marta Romero-García, *Intensive & Critical Care Nursing*, https://doi.org/10.1016/j.iccn.2022.103206

as well as the desire to leave the profession, and should be addressed, not only in permanent staff, but also in temporary staff, redeployed to these units as reinforcement workers.

Implications for Clinical Practice

- Intensive care unit staff were clearly at risk of suffering moral distress during the first wave of the pandemic.
- The mental health of intensive care unit staff is largely related to moral distress and avoidance-oriented coping styles; moral distress is particularly prominent in health professionals from other departments redeployed to unit and in professionals working in hospital units converted into intensive care units. Emotional support should be offered to intensive care unit workers during the pandemic, particularly to staff brought in from other departments.
- Preventive and emotional support interventions for health professionals should consider including psychoeducation related to active coping strategies, training in dealing with ethical dilemmas, and specialised training to care for critically ill patients.
- This research provides key concepts for the evaluation of mental health that can be improved and used by the Occupational Health and Mental Health departments of hospitals, during a pandemic, for the assessment, follow-up and, if necessary, intervention, in intensive care unit staff.

Introduction

Moral distress

Moral distress was first described in nurses as a process of pain or anguish occurring when health professionals know the ethically correct action they should perform in their work, but there are real or perceived limitations preventing them from doing the right thing (Jameton, 1984). The study was later extended to other professionals such as physicians, psychologists, occupational therapists, social workers, and other healthcare professionals (Austin et al., 2005; Schwenzer and Wang, 2006; Brazil et al., 2010; Epstein et al., 2019). The factors have been divided into three main categories related to 1) the patient and family (e.g., patient-centred care conflicts, participating in non-beneficial treatments), 2) the intensive care unit (ICU) and work staff (e.g., ethical conflicts with colleagues, lack of shared decision-making, team discordance) and 3) the healthcare system itself (e.g., poor communication, institutional policies) (Hamric and Epstein, 2017). When a health professional is repeatedly unable over time to perform actions they consider ethically correct, a "moral residue" is created (Webster and Bayliss, 2000; Epstein and Hamric, 2009) and the negative feelings remain after the situation has passed, leading to a "crescendo" effect, with increasingly intense responses to new experiences (Epstein and Hamric, 2009).

Psychological and emotional responses associated with moral distress include feelings of powerlessness, self-blame, anger, frustration, and discouragement (Rodney, 2013), burnout (Sajjadi et al., 2017), anxiety and depression (Lamiani et al., 2017; Oh and Gastmans, 2015; Rittenmeyer and Huffman, 2009), deterioration of morale and teamwork, decreases in the quality of care, challenges related to patient safety (Rodney, 2017) and desire to leave the job (Fernandez-Parsons et al., 2013).

Intensive care units are one of the departments where moral distress has been studied most extensively (Bruce et al., 2015; Henrich et al., 2016; Meltzer and Huckabay, 2004). In these units, situations that facilitate this emotional state include ethical dilemmas with critically ill patients, the use of technology and life support, patients who require withdrawing or withholding treatment, and clinical actions that could imply futile medical care (Hiler, et al., 2018; Mealer and Moss, 2016; Piers et al., 2011). A qualitative phenomenology study by Henrich et al. (2016) also identified additional factors: excess or lack of quality and quantity of the care provided, non-existent or inappropriate care plans, communication issues, need to make end-of-life care decisions, interaction and conflict between ICU staff and the family, recommendations given to patients by other professionals, and problems related to ICU resources and support received. In 2016, various scientific critical care societies appealed for action, highlighting moral distress as one of the essential areas for investigation and intervention in ICUs, together with burnout, compassion fatigue, and the perception of inappropriate care (Moss et al., 2016). Health professionals may perceive that the care they offer to patients is "inappropriate" when their knowledge or beliefs about its quality or quantity are not aligned (Kon et al., 2016).

COVID-19: emotional impact and coping strategies

The COVID-19 pandemic has been associated with an increase in the psychosocial risks of healthcare work, implying significant emotional consequences for these professionals (Blanco-Donoso et al., 2020). In ICUs in particular, moral distress levels have risen (Sheather and Fidler, 2021), and various studies mention decisive aggravating factors in the units, such as rationing and triage due to the scarcity of resources e.g., lack of ventilatory support, duplication of ICU beds in departments other than the usual ICU, and a lack of sufficient personal protective equipment (PPE), the need to prioritise COVID-19 patients over others, difficulty with team collaboration due to members affected by the disease, and patient and family solitude and isolation (Cacchione, 2020; Kanaris, 2021; Morley et al., 2020; Sheather and Fidler, 2021).

The distress of healthcare work during the pandemic has affected the emotional health of professionals, who have shown symptoms of anxiety, depression, peritraumatic dissociation, and burnout (Shanafelt et al., 2020; Azoulay et al., 2020a; Azoulay et al., 2020b). In Spain, some studies report that 45.7% of health professionals were at high risk for a mental disorder during the first phase of the pandemic, with reports also of symptoms related to general anxiety, panic attacks, depression, substance abuse, and suicidal ideation (Alonso et al., 2020; Mortier et al., 2020). Although there is research on this emotional impact and its prevalence, only a few studies have investigated how professionals cope with the resulting stress.

According to Lazarus and Folkman's traditional model (1984), coping strategies are understood to be any cognitive and behavioural efforts developed to handle specific external and internal demands considered overwhelming for the person's resources. These strategies are aimed at reducing the pressure of stressful situations. This objective is achieved through coping directly (thus reducing stress), but also indirectly, by mediating between stressors and emotional consequences for health (Folkman and Lazarus, 1988). During the pandemic, Babore et al. (2020) in Italy reported on an example of direct coping, finding that health staff's main functional strategy for coping was a positive attitude that enabled them to reinterpret the negative situations they encountered, thus making it easier to deal with them. The mediating effect of various coping strategies on emotional health was investigated by Savitsky et al. (2020) in nursing students and by Huang et al. (2020) in nurses, who found that the use of humour reduced anxiety levels, whereas dysfunctional strategies, such as the use of alcohol or anti-anxiety agents and eating in excess, increased these levels. However, efficient active coping strategies, flexibility in shifting focus or perspective during work hours, and acceptance have been related to greater emotional well-being in frontline health professionals (Cai et al., 2020). To date, there are no published studies in Spain on the extent to which moral distress and coping strategies affected ICU staff emotionally during the first wave of the pandemic. Unlike Asian countries, Western countries such as Spain have had little prior experience with pandemics of this magnitude, and the situation faced was unfamiliar to health professionals.

Aim of the study

The aim of this study was to assess moral distress, possibly associated emotional health issues (anxiety and depression), and coping styles in ICU staff during the first wave of the COVID-19 pandemic.

Methods

Study design and participants

This study was based on a multicentre, cross-sectional, descriptive and correlational design.

The study setting consisted of ICUs and areas converted into ICUs in public and private hospitals in Spain during the first wave of the COVID-19 epidemic. The study population was made up of permanent ICU staff and temporary ICU staff, redeployed from other departments due to the pandemic, i.e., ICU workers who staffed these units between February and May 2020. The inclusion criteria were age ≥18 years and intensive care unit work during the pandemic. The exclusion criterion established was work in paediatric intensive care units or intermediate care units.

A consecutive, non-probabilistic sampling method was used until the sample size had been achieved. A sample size of 427 individuals was calculated to estimate a population percentage of around 50% (with a 95% confidence interval and precision of ±5 percentage points). A replacement level of 10% was estimated.

All responders were recruited through a request posted on social media pages of the International Research Project for the Humanization of Intensive Care Units (HU-CI).

Data collection

All data were collected from March to June 2020 through an online form that included the following scales:

- *Demographic and occupational characteristics:* Questionnaire to collect information on sex, age, number of children, profession, management duties, type of hospital, usual work department, workplace during the pandemic, type of ICU cubicle, patients per day under their responsibility, work hours per week, and sick leave during the pandemic.
- *Measure of Moral Distress for Health Care Professionals (MMD-HP)* by Epstein et al. (2019), adapted into Spanish by Rodríguez-Ruíz et al. (2021): Self-administered questionnaire to evaluate the level of moral distress, with 27 items on a Likert-type scale with five frequency scores, from 0 (never) to 4 (frequently) and five intensity scores, from 0 (none) to 4 (high). The two scores for each item are multiplied (range, 0–16) and all results are then added, yielding an overall score of moral distress (range, 0–432) where higher scores indicate greater levels of moral distress. The questionnaire also included an open-ended question where the professional could describe other situations associated with moral distress but not included in the instrument, and two additional items on any past or present thoughts of leaving the profession due to moral distress. In this study, Cronbach's alpha for this scale was 0.93.
- Carver's *Brief COPE* (1997), adapted into Spanish by Crespo and Cruzado (1997): Self-reported questionnaire comprising 28 items to assess coping strategies according to level of use. A Likert-type scale with four choices, from 0 (not at all) to 3 (a lot). Fourteen coping styles were obtained: active coping, planning, use of instrumental support, self-distraction, venting, behavioural disengagement, positive reframing, denial, acceptance, religion, substance use (alcohol, medication), humour, and self-blame. Cronbach's alpha for this scale was 0.78.
- *Generalized Anxiety Disorder (GAD-7)* by Spitzer, et al. (2006), Spanish version by Garcia-Campayo et al. (2010): Seven items on symptoms and disability associated with generalised anxiety with four Likert-type response options, from 0 (not at all) to 3 (nearly every day). The total score was obtained by adding all items, yielding a score between 0 and 21. According to the original authors, the total score may be categorised into four severity groups: minimal (0–4), mild (5–9), moderate (10–14), and serious (15–21). Cronbach's alpha was 0.92.
- *Patient Health Questionnaire (PHQ-9)* by Kroenke et al., 2001; Kroenke and Spitzer, 2002; Spitzer et al., 1999), adapted into Spanish by Diez-Quevedo et al. (2001): Assessment of depressive symptoms, composed of nine items with four Likert-type response options, from 0 (not at all) to 3 (nearly every day), referring to the past two weeks. The total PHQ-9 score is between 0 and 27 (5–9 is classified as mild depression, 10–14 as moderate depression, 15–19 as moderately severe depression, and ≥20 as severe depression). Cronbach's alpha for PHQ-9 was 0.892 (Sun et al., 2020).

Data analysis

A descriptive analysis was performed on all variables. Quantitative variables are expressed as measures of central tendency and dispersion (mean, median, standard deviation [SD], and dispersion), and qualitative variables are reported as percentages and frequencies. To determine the relationship between the main variables and the demographic or occupational characteristics, Pearson's correlation coefficient and the Mann–Whitney U test were used for variables with two categories and Kruskal–Wallis test for variables with more than two categories; Pearson's chi-squared test was also used. Multivariate linear regression models were developed to explore the predictive ability of moral distress and coping on anxiety and depression. To construct the reduced model, variables of low statistical significance were discarded, controlling the beta coefficients (confounding factor). The models were tested using Snedecor's F-distribution ($p < 0.05$) and the adjusted R-squared.

The information gathered from the open-ended question in the *Measure of Moral Distress for Health Care Professionals (MMD-HP)* instrument was analysed with code-based content analysis, using NVivo-12 software.

Ethical approval

The study was conducted in accordance with the principles of the Declaration of Helsinki and approved by the Clinical Research Ethics Committee of the hospital (Code 20/432-E_COVID). Prior to completing the questionnaire, all participants gave informed consent, confirming that they understood that participation was voluntary and anonymous and that they could withdraw at any time, and that their data would be completely confidential, stored, and analysed on a secure computer, and used only for the study.

Table 1
Occupational characteristics of the sample (n = 434).

Characteristic Profession	N	%
Nurse	279	64.3
Physician	75	17.2
Nurse's aide	63	14.5
Orderly	10	2.3
Physical therapist	6	1.4
Psychologist	1	0.2
Type of facility		
Public	352	81.1
Private	82	18.9
Management duties		
Yes	43	90.1
No	391	9.9
Usual work role		
ICU	323	74.4
Other department(s)	111	25.6
Work role during the pandemic		
ICU	319	73.5
Hospital area converted into ICU	115	26.5
Number of hours worked per week during the pandemic		
30 or less	30	6.9
30 to 50	333	76.7
More than 50	71	16.4
Sick leave due to coronavirus		
Yes	65	15.0
No	369	85.0
Sick leave due to anxiety, stress, and/or depression during the pandemic		
Yes	18	4.1
No	416	95.9

Results

Demographic characteristics

A total of 434 individuals took part in the study. The mean age was 41.33 years (SD, 9.80), and 81.8% (n = 355) were women. The occupational characteristics are listed in Table 1.

Moral distress, anxiety, and depression in the sample

Average levels of moral distress were obtained in the sample, with a mean score of 153.89 (SD, 80.34) and moderate levels of generalised anxiety and depression, with mean scores of 11.62 (SD, 5.50) and 10.71 (SD, 5.99), respectively.

Moral distress was significantly higher in women ($p = 0.01$), at younger ages ($p = 0.04$), and in staff with no management duties ($p = 0.005$). Higher levels of moral distress were also observed in people who had higher levels of anxiety ($p < 0.05$) and depression ($p < 0.05$), as well as those who required sick leave during the pandemic due to work-related stress, anxiety, and/or depression ($p = 0.01$).

As regards professional groups, the score for moral distress was higher in nurses, although the difference between the various professions was not statistically significant. However, differences were observed according to the unit where a person was working, with higher levels of moral distress expressed by professionals working in areas converted into ICUs during the pandemic than by individuals working in normal ICUs ($p = 0.04$).

Anxiety and depression levels were higher among temporary ICU personnel than among permanent ICU staff, with these differences being statistically significant (anxiety, $p = 0.038$; depression, $p = 0.009$).

Table 2
List of codes, frequencies, and percentages of situational contexts that could generate moral distress.

Codes	Frequencies (%) n = 79
– Absence of family	12 (15.19%)
– Patient death	10 (12.66%)
– Workload	5 (6.33%)
– Material and human resources	12 (15.19%)
– Personal protective equipment (PPE)	8 (10.13%)
– Uncertainty	1 (1.26%)
– Experience and qualification	12 (15.19%)
– Therapeutic obstinacy	4 (5.06%)

Results of the open-ended question about "Other situations in which you have experienced moral distress" (MMD-HP)

A total of 79 people identified "other situations", as listed below. The analysis of the response content (Table 2) described four overall situations that could lead to moral distress:

1. *Absence of family and a patient dying alone*, i.e., absence of family members requiring professional interventions not considered to be part of their professional role. For instance, participant 25 (P-25) mentioned as an example: "*Every time I had to accompany a patient as they took their last breath, so they would not die alone because their family couldn't come to the hospital.*"

2. *Excessive workload*, leading to situations related to (1) **providing infrequent, low-quality care** and (2) **difficulty supervising health professionals who were recently qualified or inexperienced in critical care**. P-198: "*Insufficient time to provide proper care or teach inexperienced colleagues.*"

3. *Restricted resources*, *categorised as:* (1) **Lack of PPE**, increasing personal risk and lowering health care quality. P-309: "*Lack of material, personal protection equipment to be able to enter as often as necessary.*" (2) **Lack of material resources**, mainly beds and ventilators. P-195: "*(…) having to decide which patients can be admitted to the ICU and which ones can't (…) as it isn't possible to care for everyone.*" (3) **Lack of sufficient human resources** with adequate ICU experience. P-57: "*Working in a unit transformed into an ICU for adults (…) with no ICU specialist.*"

4. *Clinical uncertainty*, i.e., a perception of providing non-evidence-based healthcare. P-147: *"(…) uncertainty due to insufficient knowledge of the disease and what we were dealing with, leading to improvised healthcare."* Some participants even relate this to the behaviour mentioned by P-64: *"therapeutic obstinacy."*

Intention to leave

In response to two MMD-HP items about leaving the profession (first item "considered leaving prior to the pandemic" and second item "considered leaving current position during the pandemic and in relation to moral distress"), 58.5% (n = 254) reported they had not considered leaving the profession in the past (before the pandemic), 35.9% (n = 156) had considered it, and 5.5% (n = 24) had actually left at some point. In these health professionals, there was a significant difference ($p = 0.03$) in the usual workplace: 38.4% (n = 124) of permanent ICU staff had considered leaving whereas 50.4% (n = 56) of temporary staff, redeployed from other departments had considered it.

A significant difference ($p = 0.02$) was also observed in the workplace of staff who considered leaving their current position during the pandemic due to moral distress (second item): more professionals working in units converted into ICUs considered leaving their position (45.2%, n = 52) than staff in established ICUs (40.2%, n = 128).

Professionals who thought about leaving the profession and those who did not also showed significant differences in the levels of anxiety

Table 3
Coping during the early phase of the COVID-19 pandemic.

Coping styles	Mean ± SD	Range
Active coping	2.21 ± 0.60	0.5–3
Planning	1.83 ± 0.65	0–3
Use of instrumental support	1.70 ± 0.66	0–3
Use of emotional support	1.95 ± 0.73	0–3
Self-distraction	1.65 ± 0.73	0–3
Venting	1.31 ± 0.69	0–3
Behavioural disengagement	0.53 ± 0.95	0–6
Positive reframing	1.44 ± 0.78	0–3
Denial	0.49 ± 0.68	0–3
Acceptance	2.13 ± 0.58	0.5–3
Religion	0.65 ± 0.83	0–3
Substance use	0.20 ± 0.45	0–3
Humour	0.88 ± 0.82	0–3
Self-blame	0.79 ± 0.64	0–3

($p < 0.05$), depression ($p < 0.05$), and moral distress ($p < 0.05$). The scores obtained from people who considered leaving were higher for anxiety (15.06 vs 10.75), depression (14.73 vs 9.69), and moral distress (207.93 vs 140.15).

Coping styles, moral distress, and emotional health

Active coping, acceptance, emotional and instrumental support, and planning were the styles used most often by health professionals. The levels of the different coping styles are listed in Table 3.

Health professionals with the highest moral distress scores made greater use of instrumental support ($p < 0.05$), self-distraction ($p < 0.05$), venting ($p < 0.05$), behavioural disengagement ($p < 0.05$), denial ($p = 0.004$), substance use ($p < 0.05$), and self-blame ($p < 0.05$) than professionals with low levels of moral distress. Significant differences were also seen in coping by acceptance, such that lower levels of moral distress were associated with higher levels of acceptance ($p < 0.05$).

A positive correlation was observed between anxiety and the use of instrumental support ($p < 0.05$), self-distraction ($p < 0.05$), venting ($p < 0.05$), behavioural disengagement ($p < 0.05$), denial ($p < 0.05$), substance use ($p < 0.05$), and self-blame ($p < 0.05$) whereas a negative correlation was seen with acceptance ($p < 0.05$).

More severe depressive symptoms correlated positively with self-distraction ($p < 0.05$), venting ($p = 0.012$), behavioural disengagement ($p < 0.05$), denial ($p < 0.05$), substance use ($p < 0.05$), and self-blame ($p < 0.05$), and negatively with positive reframing ($p = 0.001$) and acceptance ($p < 0.05$).

Table 4
Multiple regression models for anxiety and depression.

	β (95% confidence interval)		t	p
Anxiety				
(Model constant)	5.24	(3.07–7.41)	4.74	0.00
Use of instrumental support	0.96	(0.28–1.63)	2.79	0.00
Self-distraction	1.36	(0.75–1.97)	4.41	0.00
Behavioural disengagement	0.54	(0.08–1.00)	2.29	0.02
Denial	0.96	(0.31–1.62)	2.89	0.00
Acceptance	−0.83	(−1.63 to −0.03)	−2.05	0.04
Substance use	1.14	(0.18–2.10)	2.34	0.02
Self-blame	1.06	(0.38–1.75)	3.04	0.00
Positive reframing	−0.68	(−1.26 to −0.10)	−2.310	0.02
Moral distress	0.02	(0.02–0.03)	7.80	0.00
Depression				
(Model constant)	5.19	(2.84–7.54)	4.33	0.00
Use of instrumental support	−0.08	(−0.81–0.66)	−0.20	0.84
Self-distraction	1.42	(0.76–2.01)	4.24	0.00
Behavioural disengagement	0.61	(0.11–1.11)	2.39	0.02
Denial	1.12	(0.41–1.84)	3.10	0.00
Acceptance	−0.61	(−1.48–0.25)	−1.39	0.16
Substance use	1.26	(0.23–2.30)	2.39	0.02
Self-blame	1.65	(0.90–2.40)	4.34	0.00
Positive reframing	−1.13	(−1.76 to −0.50)	−3.52	0.00
Moral distress	0.02	(0.02–0.03)	7.83	0.00

Prediction of emotional health variables

A multiple linear regression analysis was used to identify potential predictors of mental health issues in the sample. Anxiety and depression were taken as dependent variables, and variables exhibiting a significant relationship were considered independent. Table 4 lists the predictors identified by the models.

The presence of moral distress, together with the coping styles of self-distraction, substance use, low level of acceptance, self-blame, denial, use of instrumental support, and behavioural disengagement, were the variables identified by the model as predictors of anxiety, altogether explaining 37% (AdR^2) of the variance.

In the case of depression, the presence of the coping styles of moral distress, such as self-blame, self-distraction, absence of positive reframing, denial, substance use, and behavioural disengagement, altogether explain 38% (AdR^2) of the variance.

Discussion

The pandemic experienced by health professionals is a completely new and unfamiliar situation in their professional lives for most of them. Their reactions could be considered "normal" responses to an "abnormal" situation. This in-depth study on moral distress among ICU staff explored an area that has been insufficiently researched in the Spanish population, as the main instrument has only recently been validated in the Spanish language (Rodriguez-Ruiz et al., 2021). Consistent with international findings during the pandemic (Cacchione, 2020; Kanaris, 2021; Rodríguez-Sheather and Fidler, 2021), our results report a real, albeit moderate, risk of moral distress in Spanish ICUs during the first few months of the pandemic. The risk profile was unfavourable for women, for young health professionals who did not hold management posts, and for nurses, but profession-related differences were not statistically significant. Several studies report that nurses tend to be more severely affected by moral distress (Dodek et al., 2016; Neumann et al., 2018; Whitehead et al., 2015), whereas other research finds some inconsistencies in the differences between health professionals (Epstein et al. 2019). In ICUs, interdisciplinary teamwork is absolutely essential for daily routines (Donovan et al, 2018), but even more so during a pandemic. This approach gives staff shared exposure to morally challenging situations, a common ethical climate known to be key in explaining moral distress (Atabay et al., 2015; Corley et al., 2005; Pauly et al., 2009). It also enables them to experience the stress as a group (Peiró, 2001), providing common and shared responses to the process.

Data obtained from the open-ended items of this research exemplify pandemic-related situations conducive to the development of moral distress, consistent with other qualitative studies (Dolgin et al., 2020). These situations fall into the three theoretical groups described by Hamric and Epstein (2017). The first group is designated "patient and family," and in our study, professionals found it extremely difficult to alleviate their emotional suffering through the usual work standards and practices, especially when coping with watching a patient dying alone. The second group, "unit and staff," refers to high-pressure ICU situations where actions perceived as ethically correct became difficult due to the need to coordinate with professionals who were recently qualified or who lacked experience in critical care. Third, "the system or organisation itself", covers the lack of material, human, and PPE resources that led to situations where professionals were aware of the ethically correct actions but were unable to perform them.

These situations influenced the moral distress and mental health of ICU staff, with our results showing a clear bidirectionality between the two. Consequently, professionals experiencing anxiety, depression, and/

or sick leave during the pandemic had higher levels of moral distress. Likewise, moral distress plus avoidance-oriented coping styles (e.g., self-distraction, denial, substance use, behavioural disengagement, low self-acceptance, and high self-blame) were strong predictors of these emotional symptoms.

A study by Lazarus and Folkman (1986) shed light on how active coping helps ICU staff to deal with the problem directly, minimise the impact of the situation, regulate emotions, and reinterpret and seek an adaptive sense, whereas passive or avoidance-oriented coping can aggravate it. Furthermore, when the professional's experiences lead to moral injury as a result of performing or witnessing actions that go against the moral code, then avoidance-oriented strategies and maladaptive behaviours are often seen (Litz et al., 2009). Among our sample, moral distress was also linked with a stronger intention to leave the job, consistent with findings from other countries, such as Iran (Naboureh et al., 2020), Lithuania (Laurs et al., 2020), and the United States (Dyo, et al., 2016). These results could be relevant for the health of healthcare professionals and organisations, as the risk of an intention to leave was already present before the pandemic, especially among nurses (Heinen et al., 2012). The pandemic has even adversely affected the professional identity of student nurses (Nie et al., 2021), with this being associated with mental health issues (Jiang et al., 2019), as in our study.

These results were especially significant among health professionals redeployed to ICUs from other departments and among professionals who worked in hospital areas converted into ICUs. In addition to experiencing higher levels of moral distress, anxiety, and depression, these professionals were more likely to have considered leaving their job. Other research in Europe has not reported significant differences in anxiety levels between permanent staff and temporary workers; although the latter did show higher levels of depressive symptoms than permanent ICU staff (Altmayer et al., 2021). In this pandemic, health professionals were redeployed to ICUs, compelling them to work in an unfamiliar environment with patients of different characteristics and clinical course who required very specific critical decisions. Urgent incorporation into the ICU setting sometimes means health professionals miss training and coaching in tackling ethical dilemmas, a variable related to moral distress (Greenberg et al., 2020). Conversely, suitable airway management training is associated with lower levels of moral distress in ICUs (Golitaleb et al., 2021). From the workplace perspective, the need to improvise ICUs in previously unprepared areas also appears to have introduced new ethical and emotional challenges, confirming that the setting can influence people's well-being and that a healing and humanised environment should be created (Bosia et al., 2016; Huisman et al., 2012; Rubert et al., 2007), thus promoting the humanisation of ICUs (Velasco and Heras, 2020).

Limitations

This study has several limitations. First, due to the cross-sectional design, causal relationships could not be established between the variables. Longitudinal and prospective studies are needed to further investigate the interaction between moral distress and the variables of anxiety, depression, intention to leave, and coping. This should be done considering the population with possible mental health problems prior to the pandemic, a variable that was not controlled in this study. Second, voluntary participation via an online form could have created a biased response due to the self-selection of the sample. Last, this is an early study on moral distress in the Spanish population and used a recently validated scale; therefore, additional research is required to confirm the results.

Conclusions

This study reveals the real risk of moral distress among ICU staff during the COVID-19 pandemic. This level of distress, coupled with avoidance-oriented and passive coping styles, provides significant predictors of anxiety and depression and is related to a stronger desire to leave the job. Training in functional coping styles, ethical dilemmas, and critical care can help alleviate moral distress and reduce related harm. Mental health care of frontline health professionals during a pandemic should focus not only on ICU staff, but also on reinforcement workers who have since returned to their original roles and who may have experienced significant harm in terms of emotional well-being, as reported by our study. Further research should be undertaken to identify useful criteria for selecting these reinforcement professionals and for providing them with adequate training, follow-up, and emotional support.

Funding

This research did not receive any specific grants from funding agencies in the public, commercial, or not-for-profit sectors.

Ethical statement

The study was conducted in accordance with the principles of the Declaration of Helsinki and approved by the Clinical Research Ethics Committee of the hospital (Code 20/432-E_COVID). Prior to completing the questionnaire, all participants gave informed consent, confirming that they understood that participation was voluntary and anonymous and that they could withdraw at any time, and that their data would be completely confidential, stored and analyzed on a secure computer, and used only for the study.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We would like to thank the ICU staff for their contributions and assistance as well as for their patience and participation.

Contributions: All authors contributed to the study design, performed a critical review of the manuscript, and gave approval for the manuscript to be submitted in its present form.

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Received: 5 July 2021 | Revised: 22 August 2021 | Accepted: 3 September 2021

DOI: 10.1111/jocn.16050

Journal of Clinical Nursing WILEY

ORIGINAL ARTICLE

Psychological crisis and emergency intervention for frontline critical care workers during the COVID-19 pandemic

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Funding information
The study has not received any funding

Abstract

Aim: To explore the main feelings and coping strategies among frontline critical care workers during the first phase of the COVID-19 pandemic and to evaluate the level of satisfaction after a psychological crisis and emergency intervention.

Background: The health crisis brought about by the COVID-19 pandemic has exposed critical care workers to an intense physical and emotional burden. Scientific research recommends psychological crisis and emergency interventions during the acute phase to help cope with the situation and prevent emotional side effects.

Design: A multicentre descriptive study with mixed qualitative and quantitative data was developed.

Methods: Healthcare and non-healthcare critical care workers from 16 hospitals were included. Psychological crisis assistance was given (for individuals and groups), both face-to-face and online, with 18 psychologists for two months. Content analysis from the psychologists' session reports after each intervention was performed (COREQ). Satisfaction with the intervention was assessed with an *'ad hoc'* 21-item online survey.

Results: A total of 553 interventions were carried out (361 individually and 192 in groups). Four themes were identified: 1-Imbalance between occupational demands and resources; 2-Acute stress responses; 3-Personal and professional consequences; and 4-Protection factors. The main protection factor identified was group cohesion and perceived social support. The mean general satisfaction with the intervention was high and 96.2% (n=252) of the participants would recommend it in future.

Conclusions: A psychological crisis and emergency intervention helped critical care workers during the COVID-19 pandemic to verbalise and integrate the situation, providing strategies to cope with the experience with a high level of satisfaction from the participants assisted.

Relevance to clinical practice: During the COVID-19 pandemic, support groups guided by psychologists fostered reflection on aspects related to work, interaction with patients and relatives and social support from workmates that help them for coping with stress, share emotions and experiences and feel understood.

KEYWORDS
critical care, critical care workers, intensive care units, nursing, psychological intervention for emergencies and crises, psychology

1 | INTRODUCTION

The health and care crisis caused by the COVID-19 pandemic has led frontline critical care workers to an intense emotional burden in the workplace, with a high risk for their mental health (Gold, 2020). Even before the pandemic, in their usual work, critical care workers frequently experience symptoms of anxiety, depression, and sleep disorders (van Mol et al., 2015). The situation caused by this new form of coronavirus has increased the presence of these psychological disturbances (Pappa et al., 2020). The first Contingency Plan by Spanish intensive medical and nursing associations recommended that there was a need for psychological support for healthcare staff and the population receiving care. This need was based on the work overload and stress that frontline critical care workers were subjected to, as well as being exposed to a real risk of contagion (Cai et al., 2020; Huang et al., 2020).

What does this paper contribute to the wider global clinical community?

- Frontline critical care workers during the COVID-19 pandemic perceived an imbalance between the occupational demands and available resources, with acute stress responses that had consequences on their individual and occupational health.
- Group cohesion and the social support perceived was the main protection factor as an element where one could share emotions and experiences and feel understood.
- A psychological crisis and emergency intervention helped them to verbalise and integrate the situation, providing strategies to cope with the experience with a high level of satisfaction from the participants assisted.

2 | BACKGROUND

Different studies on the emotional risks in healthcare workers and the general populace deriving from other pandemics, report emotional, cognitive, behavioural and psychosomatic stress responses (Tam et al., 2004), a high risk of increase in professional risks of a psychosocial nature such as burnout (Kim & Choi, 2016) and possible consequences for health if such situations are not controlled, with even a high risk of post-traumatic stress disorder (PTSD) (Lee et al., 2018). Among workers, a high prevalence of this emotional impact has been associated with shortages of personnel and equipment, work overload, the risk of being exposed to aerosol-generating procedures, lack of access to personal protective equipment (PPE), a perception of inappropriate care due to the high number of patients cared for, limited communication between patients and their relatives, and witnessing prolonged suffering and death of patients (Elbay et al., 2020; Inchausti et al., 2020; Li et al., 2020). Recent studies have documented that 45.7% of healthcare workers in Spain showed a high risk of mental disorder during the first wave of COVID-19, with depression, anxiety, panic attacks, substance abuse and active suicidal ideation (Alonso et al., 2021; Mortier et al., 2021), as has also been documented in international studies. Among intensive care unit (ICU) workers, a European survey reports a prevalence of 46.5%, 30.2% and 51% of symptoms of anxiety, depression and emotional exhaustion, respectively, among intensivists during the COVID-19 outbreak, with great differences between regions (Azoulay, De Waele, et al., 2020). In an observational study in 21 ICUs in France, the prevalence of symptoms of anxiety, depression and peritraumatic disassociation came to 50.4%, 30.4% and 32%, respectively, with higher rates among nurses (Azoulay, Cariou, et al., 2020). In addition to emotional symptoms, frontline critical care workers self-describe situations of moral distress, vulnerability and compassion fatigue due to difficulties in decision-making, particularly in end-of-life situations (Alharbi et al., 2020; Falcó-Pegueroles et al., 2021; Neto et al., 2020; Silverman et al., 2021), as well as high levels of depersonalisation and emotional exhaustion (Barello et al., 2020; Blanco-Donoso et al., 2020; Jiang et al., 2020). González-Gil et al., (2021) highlight that more than half of the nurses in critical and emergency care reported an inability to provide psychosocial care to patients and families. Staff shortages led some governments to allow nursing and medical students to work as ‘support staff’ under supervision. Unfortunately, due to the pandemic progression, nursing students have finally been worked as frontline critical care nurses. Overall, students felt unprepared to work in ICUs, experiencing high levels of anxiety and stress when caring for patients with ventilatory support (Hernández-Martínez et al., 2021). Likewise, other non-healthcare workers, such as hospital cleaners, were also exposed to the risk of contagion, being the group with the highest occupational risk of exposure to SARS-CoV-2 (Shields et al., 2020). Compared to their healthcare peers, hospital cleaners felt forgotten and underappreciated as ‘lower level employees’, highlighting that their essential role was unrecognised (Brady, 2020). However, no specific research on their experiences has been published.

Following the recommendations calling for the provision of support, and given the sudden nature of the outbreak, a psychological crisis and emergency intervention became necessary to assist frontline healthcare and non-healthcare critical care workers (Chen et al., 2020; Duan & Zhu, 2020; Greenberg et al., 2020; Jiang, Deng, et al., 2020; Zgueb et al., 2020; Zhang et al., 2020). Traditionally, psychological interventions in emergencies, crises and disasters with responders are carried out in outpatient hospital care after serious accidents, natural disasters, public health emergencies or terrorist attacks have occurred. However, their application in the hospital setting and particularly in the ICU setting is uncommon. In Spain, the proportion of psychologists in the national health system is scarce (6 psychologists for every 100,000 inhabitants) (Fernández-Marugán, 2020), so that in a crisis situation like the one experienced, the resources available have been insufficient. For this reason, the government laid down a rule that enabled access to external resources for the specific situation of crisis due to the pandemic. In order to collaborate in this situation, the International Research Project for the Humanization of Health Care (HU-CI Project) designed and coordinated a psychological intervention programme for emergencies and crises aimed at frontline critical care workers throughout Spain in order to carry out the urgent psychological need for emotional support work, detect earlier the appearance of possible psychological sequelae, and to foster health among responders.

3 | AIM

The aim is to explore the main feelings and coping strategies among frontline critical care workers during the first phase of the COVID-19 pandemic and to evaluate their level of satisfaction after a psychological crisis and emergency intervention.

4 | METHOD

4.1 | Design

A multicentre, descriptive study with mixed qualitative and quantitative data from April to June 2020 was developed in response to a psychological crisis and emergency intervention for frontline healthcare and non-healthcare critical care workers at 16 hospitals in three Spanish regions (Cataluña, Madrid and Castilla La Mancha). Table 1 shows the main characteristics of the participating hospitals.

4.2 | Participants

Frontline healthcare (doctors, nurses, nurses' assistants, physiotherapists, managers) and non-healthcare (orderlies, cleaning staff, students) workers who carried out their professional activity in ICUs and units converted to ICUs during the COVID-19 pandemic, including those on sick leave due to illness or isolation due to contagion, were invited to participate. The recruitment was consecutive and tailored according to the hospital characteristics including printed flyers on the notice board of each ICU, a face-to-face approach to participants or through the hospital e-mail. The participation was voluntary and, no exclusion criteria were considered. Following the intervention, the participants were invited to answer a satisfaction survey.

4.3 | Intervention

A psychological crisis and emergency intervention in ICUs was carried out. It was designed and coordinated by the HU-CI Project. In order to select the psychologists, collaboration was requested from the Official Psychology Associations in the regions involved based on meeting the following criteria: (1) specialist clinical psychologist or general psychologist, (2) with education from an official body (universities, professional schools, etc.) in Crisis and Emergency Psychology and (3) professional experience of at least two years in this area. A total of 18 professionals (15 women and 3 men) were hired who are experts in Crisis and Emergency Psychology. They carried out their job via a twofold intervention:

1. Face-to-face intervention: Eight hours a week to provide individualised psychological care, support groups and intervention in critical incidents.
2. Online intervention or telepsychology: Twenty hours a week via phone or video calls in the morning or afternoon.

The intervention was tailored according to each hospital's specific characteristics, demands and needs. For example, in some hospitals, the face-to-face sessions were spread over various days and took place at different times to be able to access different work shifts. The aims were the typical ones in this type of intervention (Robles-Sánchez, 2020; Santarone et al., 2020): to give the workers access to individual and/or group intervention as they voluntarily prefer; act preventively and pro-actively to provide people with well-being; adapt the intervention to the context of the situation being experienced; to inform the workers of the physical and emotional symptoms associated with the critical situation (at present or in future) and normalise them; provide preventive guidelines and techniques; identify and foster coping with conflicts arising from the situation, foster group communication and cohesion in the intervention team, provide a "stress-free" space; identify and strengthen typical coping and self-care resources; and to recognise the effort and work done.

4.4 | Procedure

The programme was organised into three phases:

4.4.1 | Phase 1. Preparing the intervention

In March, the HU-CI Project requested help to carry out a preventive intervention to tackle the emotional burden arising from the COVID-19 pandemic among frontline critical care workers.

TABLE 1 Hospital characteristics

Hospital	Hospital type	No. of hospital beds	No. of ICUs before COVID–19	Total ICU beds before COVID–19	No. of ICUs during COVID–19	Total ICU beds during COVID–19	Nurse-to-patient ratio
Hospital 1	Public university	> 500 beds	5	68	10	124	1/2
Hospital 2	Private	< 200 beds	1	6	2	14	1/3
Hospital 3	Public university	200 to 500 beds	1	18	3	70	1/2
Hospital 4	Public	200 to 500 beds	1	14	2	22	2/5
Hospital 5	Private	< 200 beds	1	8	3	27	1/2
Hospital 6	Public university with private management	200 to 500 beds	1	10	3	48	1/2
Hospital 7	Public university	> 500 beds	1	12	4	36	1/2
Hospital 8	Public	< 200 beds	1	8	2	20	1/2
Hospital 9	Public university	> 500 beds	1	21	5	75	1/2
Hospital 10	Public university	200 to 500 beds	1	14	3	31	1/2
Hospital 11	Public university	200 to 500 beds	1	10	4	36	1/3
Hospital 12	Public	< 200 beds	1	7	4	28	1/2
Hospital 13	Public university	> 500 beds	1	30	2	46	1/2
Hospital 14	Public university	200 to 500 beds	1	12	3	30	2/5
Hospital 15	Private university	200 to 500 beds	1	13	2	24	1/3
Hospital 16	Private university	< 200 beds	1	12	2	20	1/3
TOTAL			20	263	54	651	

Four funding companies responded (Fundación REALE Seguros, AstraZeneca, MSD and MyInvestor), giving the economic backing to hire the psychologists. Collaboration agreements were signed with the funding companies, with each of the parties' commitments and obligations. The person in charge of the HU-CI Project's Emotional Care and Psychology Area was the Programme Coordinator and Principal Investigator (PI). Through the HU-CI Project, the intervention protocol was drawn up along with the criteria to select the psychologists. A manual for action was drafted for the professionals selected, with information about ICUs and COVID-19, prevention rules, objectives for the intervention and action guidelines, forms to report weekly and monthly activities, and instruments to gather informed consents and assess participants' satisfaction.

4.4.2 | Phase 2. Recruitment of psychologists in a crisis and emergency situation and deployment of the intervention

The programme was offered via the HU-CI Project's social networks and some official mental health bodies in the participating regions, and 16 hospitals expressed their interest in participating. Collaboration agreements were set up with each hospital's management, and each region's Official Psychology Associations were contacted to select the professionals. Once they had been recruited, the psychologists had virtual preparatory meetings with the HU-CI Project to discuss the different ways to intervene and the participants' psychological needs. The PI highlighted the importance to register the reports, during and after the interventions, using the standardised form and including words used by participants, without any personal information. Each psychologist was given a mobile phone for the intervention.

4.4.3 | Phase 3. Implementation of the intervention

In each ICU, one person was designated to collaborate in the local coordination of the intervention. The intervention programme was announced with printed posters on each ICUs noticeboard providing the psychologist's name, availability timetable, email and contact phone number. A guide for the interventions was developed. This was organised in three parts: 1) Initial assessment (that included the participants' views on the risks/protection factors to deal with the situation, as well as, physiological, cognitive, motor and emotional symptoms that they felt); 2) The type of the intervention provided (active and compassionate listening; dialogue with open questions to help them tell of their experience, vent, give emotional validation, normalise reactions (contextualisation and resignification) and give and receive peer support; psychoeducation as regards guidelines to handle stress; emotion regulation; physiological, cognitive and motor deactivation; and reinforcement of self-care, functional coping (individually and as a group) and of group cohesion; and 3) Final observations and notes.

All the interventions were initiated with a general approach of the COVID-19 situation in the ICUs and gradually introduced the participants' perceptions and experiences.

Support groups were set up, informing potential participants in advance through printed announcements providing the date and the time meeting. They were held in a quiet meeting room near the ICU provided for this purpose. As the main aim of the intervention was to assist and help professionals to cope with the crisis, no specific professional groups were held, and support groups were opened to all the staff, combining healthcare and non-healthcare workers that share the same unit and shift. Individual sessions were organised upon demand from the critical care workers (with subsequent follow-ups if necessary). The face-to-face meetings were held in a quiet room in the ICU, whereas the telepsychology meetings were scheduled for the follow-up sessions. All the interventions lasted approximately 40–60 minutes. The individual psychological interventions were tailored to each participant according to their needs. Duan and Zhu (2020) stress that psychological intervention during COVID-19 should be sufficiently dynamic and flexible to adapt quickly to the different phases of the pandemic. Taking into account the nature of the emergency crisis, its implementation in the workplace itself and the confidentiality of the interventions, it was decided not to audio-recorded them to ensure freedom responses. For each intervention carried out, the psychologist drew up a structured session report, taking descriptive, contextual, inferential and methodological notes. Textual transcriptions of words were included, with expressions and literal examples expressed by the participants. These reports were sent weekly to the PI, who gave support and supervision to the psychologists throughout the intervention. Moreover, to keep each ICUs designated contact person informed about the intervention process, a brief monthly report was sent about the activity carried out (with quantitative and qualitative data but no clinical references or personal data).

4.5 | Data collection

The qualitative data were obtained through the individual and group session reports from the participating psychologists. The quantitative data were evaluated with an online non-validated *ad hoc* 21-item satisfaction survey that was sent to the participants to control the quality of the programme. The survey included closed and open-ended questions, developed by the research team and was organised into six sections: main objectives of the activity (6 items), specific aims (4 items), technical aspects of the intervention (3 items), psychology professionals (3 items) and general satisfaction (1 item), all of which on an 11-point Likert scale ranging from 0 (not at all satisfied) to 10 (very satisfied). The final mean score for each section was calculated with the average of the items (range: 0–10). Furthermore, there was a final section with questions on the opinions about four aspects: whether they would recommend this type of psychological intervention; what they most appreciated about the intervention; possible aspects for improvement in the activity; and detection of needs in the ICU that they would like to consider in future. A web survey link was sent via phone or through the hospital email to all the participants. They had one month to answer it and, one reminder was sent after two weeks. The survey took approximately 10 minutes to complete online. The survey responses were received in a specific web designated for this purpose to which only the PI had access. No personal information was included in the survey, ensuring the anonymity of the responses.

4.6 | Data analysis

4.6.1 | Qualitative data

A manifest content analysis was carried out with 553 session reports (individual and group) using Graneheim & Lundmand's method (Graneheim & Lundman, 2004). Two researchers independently analysed the psychologists' reports in four stages: decontextualisation, recontextualisation, categorisation and compilation. Initially, unit meanings were identified and grouped into codes, which in turn were grouped into subcategories and categories according to their similarity. The final naming themes were critically reviewed by the research team. Trustworthiness was ensured throughout the process.

4.6.2 | Quantitative data

A descriptive analysis of the items in the satisfaction survey was made. The categorical variables were described with the percentage and number of cases, while the quantitative variables were presented as a mean and standard deviation. The analysis was carried out with the IBM-SPSS software (v.24.0). The Consolidated criteria for reporting qualitative research (COREQ) checklist was followed (Supplementary file 1).

4.7 | Ethical considerations

The project was granted a favourable decision by the Ethics and Research Board (PR 034/21) and scientific endorsement of the national and regional societies of medicine and intensive nursing. Permission to conduct the study was obtained by each hospital's management after signing an agreement with the HU-CI Project. Each participant was requested to sign an informed consent (both for in-person and online interventions). The reports for each intervention were codified and sent by e-mail to the PI separately from the informed consents forms to ensure the anonymity of the responses. For the support groups, the code was formed with the initials of the psychologist name and surname, the report number and the word 'group'. In the individual reports, this code included seven digits corresponding to the initials of the first and last name of the psychologist, the report number and the initials of the first and last name of the person attended. The reports were sent to a specific email address with an attached file named with the corresponding identification code. These reports were kept in the custody of the PI in a file that only she had access to.

5 | RESULTS

There were 553 psychological interventions with frontline critical care workers, of which 361 were individual interventions (212 face-to-face and 149 online) and 192 support groups at the 16 hospitals. A total of 1,180 workers participated in these support groups, over half of whom were frontline ICU nurses (57.9% of the participants). Table 2 shows the number and type of interventions carried out and their distribution by hospitals.

5.1 | Qualitative findings

Four themes were identified: 1-Imbalance between occupational demands and resources; 2-Acute stress responses; 3-Personal and professional consequences; and 4-Protection factors (Figure 1). The main quotations expressed by the frontline critical care workers are shown in Table 3.

5.1.1 | Imbalance between occupational demands and resources

The emergency situation overwhelmed the running of the ICUs, such that the workers identified as the main sources of stress the significant demands of their occupational activity in the unit and certain shortfalls in carrying them out.

Subcategory 1: Logistical demands and resources. The number of ICU patients, their acuity and the necessary means of protection for frontline workers to care for them were confronted with a significant shortage of certain resources: (1) lack of necessary material for appropriate clinical assistance and PPE; (2) frequent changes in the intervention protocols; and (3) difficulty to provide care with the usual quality.

'Everything was unknown and changed very fast. What was good one day, wasn't the next' (Nurse, Hospital 1). *'This has been a war. We've done what we could'* (Doctor, Hospital 8). *'At the beginning without PPE, and then without training to use them. All the time I doubted: am I doing it right?'* (ICU cleaner, Hospital 8).

Subcategory 2: Staff demands and resources. Tackling the great increase in demand for aid implied the need to reconvert other settings in ICUs and introduce students and staff from outside areas to care for critically ill patients. These workers often did not have previous experience in specific ICUs nursing activities. This situation meant that critical care workers with experience reported a high work overload on having to supervise and teach novel external workers. For these new workers or those with little experience in ICUs, the feeling was that the responsibilities exceeded their knowledge and

TABLE 2 Number, type of intervention carried out and distribution of ICU staff by hospital

Hospital	Individual face-to-face intervention	Individual online intervention	Total individual interventions	Support group interventions	Distribution of professional categories in the support groups				Total ICU staff in support groups	TOTAL INTERVENTIONS
					Doctors	Nurses	NA	Others		
Hospital 1	33	9	42	65	1	318	148	31	498	107
Hospital 2	16	4	20	9	6	20	4	3	33	29
Hospital 3	11	2	13	14	10	55	4	0	69	27
Hospital 4	24	6	30	13	16	42	3	11	72	43
Hospital 5	7	1	8	6	0	3	0	0	3	14
Hospital 6	17	4	21	1	8	13	6	1	28	22
Hospital 7	5	1	6	6	0	24	14	0	38	12
Hospital 8	5	0	5	7	2	22	28	12	64	12
Hospital 9	8	9	17	2	4	8	0	0	12	19
Hospital 10	14	2	16	6	2	21	25	0	48	22
Hospital 11	15	82	97	11	1	24	19	0	44	108
Hospital 12	6	1	7	5	4	16	14	1	35	12
Hospital 13	19	26	45	5	15	17	14	4	50	50
Hospital 14	2	2	4	2	0	4	2	0	6	6
Hospital 15	24	0	24	23	42	45	11	2	100	47
Hospital 16	6	0	6	17	0	52	24	4	80	23
TOTAL	212	149	361	192	111	684	316	69	1,180	553

NA: Nursing assistants; Others: orderlies, physiotherapists, cleaners, nursing students, psychologists in human resources.

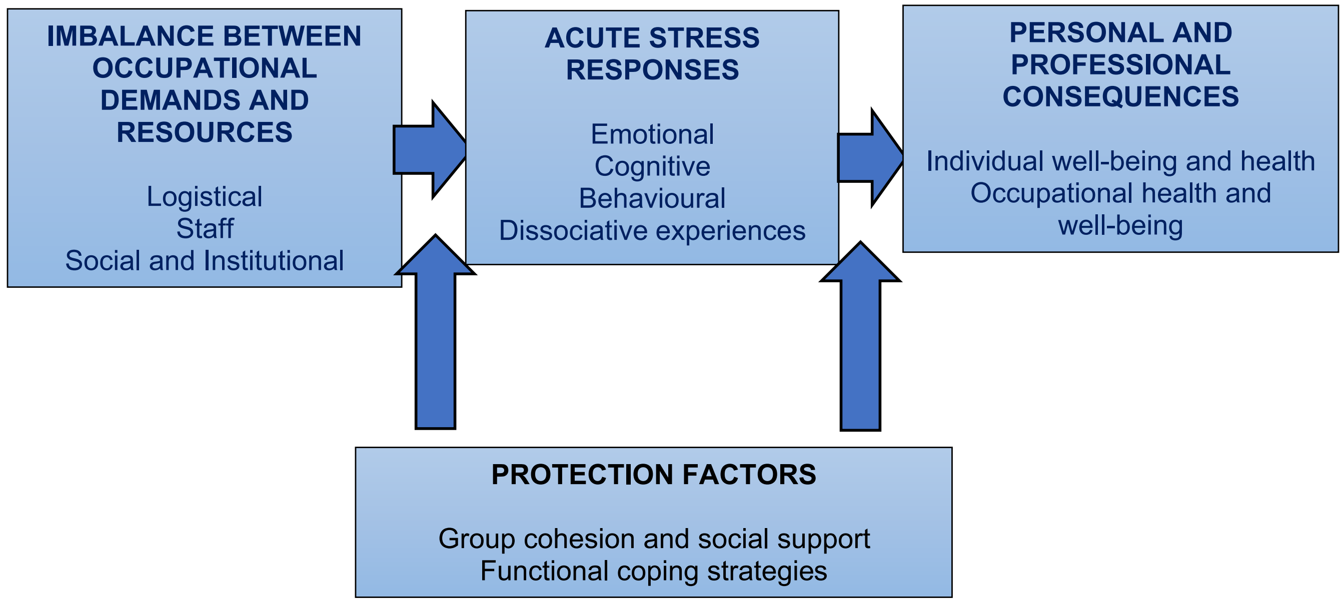

FIGURE 1 Stress process diagram according to the qualitative findings

capacity to respond. *'I was afraid to go to work because I was not up to the task.'* (Nursing student, Hospital 1). Some occupational conflicts are also indicated between different levels of experience and with other professional categories from other services. *'I had to assist my patients and those of my colleague at the same time. If not, they could die!'* (Nurse, Hospital 15).

Subcategory 3: Social and institutional demands and resources. The workers stressed that they invested a lot of effort into responding urgently and efficiently to what was requested of them personally and professionally, but that the social and institutional response and support did not meet that effort. Specifically, they perceived (1) a lack of support from the government; (2) a lack of institutional support; and (3) conflict between the social label of 'heroes' and the day-to-day behaviour of the population: *'We're not heroes; we're workers'* (Nurse assistant, Hospital 13). *'People are on the streets as if this was already over'* (Nurse assistant, Hospital 8).

5.1.2 | Acute stress responses

Typical reactions of processes of adaptation and coping with crisis situations were identified, together with experiences of great emotional burden and a potentially traumatic component.

Subcategory 1: Emotional responses. The participants reported feeling high emotional lability and frequent sobbing as this participant expressed: *'When I got home, I would cry like a mad woman'* (Doctor, Hospital 5). Emotions were identified such as impotence, frustration, sadness and helplessness in the face of the patients' isolation from their families and witnessing them die alone. *'Worst of all was accompanying people as they died without their family there'* (Nurse, Hospital 9). *'The worst thing was witnessing the loneliness of elderly patients.'* (ICU cleaner, Hospital 1). Hyperactive reactions were also identified such as rage, indignation and irritability; reactions of fear of their own contagion and, above all, of being a vector for contagion of relatives and loved ones. *'Calm down mom, everything is fine. Then I would go to my room to cry.'* (Nursing student, Hospital 4). Other reactions were uncertainty as regards the patients' clinical evolution and feelings of guilt, mainly due to the clinical assistance given. *'I feel guilty for not having done more to be able to help people not to die alone'* (Nurse, Hospital 4).

Subcategory 2: Cognitive responses. Catastrophic anticipatory cognitive biases are repeated as regards self-efficacy in coping with future waves of the pandemic: *'If another wave comes, I'm not going to be able to face it; I won't be able to go through it again'* (Nurse assistant, Hospital 13). An experience of difficulty to disconnect has been reported, and a feeling of mental sluggishness and difficulty to concentrate. Ruminations and images of intrusive thoughts are mentioned: *'I see their scared face again before being intubated'* (Nurse assistant, Hospital 14).

Subcategory 3: Behavioural responses. Avoidance and blocking behaviours were mentioned, referring to the workplace: *'I remained blocked in the staff doorway and couldn't go into the ICU'* (Nurse, Hospital 10).

Subcategory 4: Dissociative experiences. The workers related the difficulty in handling and assimilating their experience to dissociative responses such as a protection mechanism to continue working, alterations in the perception of reality and signs of derealisation: *'The first days, I didn't know how to get home; I didn't remember the way by car'* (Doctor, Hospital 15).

5.1.3 | Personal and professional consequences

Subcategory 1: Individual well-being and health. The frontline critical care workers describe a general deterioration in their (1) physical health, with somatic consequences such as muscular pain,

TABLE 3 Illustrative quotations from participants by categories and subcategories

Categories and subcategories		Illustrative quotations
Category 1: Imbalance between occupational demands and resources		
Logistical demands and resources	1	"We have used 20-year-old ventilators" (D-H4); "We had to re-use PPEs." (NA-H15) "We felt as if they were sending us to the slaughterhouse without proper PPEs." (N-H3)
	2	"Sometimes I think the protocols change depending on the material available and not on the needs." (N-H1)
	3	"Work has been done against the clock" (D-H13); "Sometimes the treatment has been inhumane." (N-H10)
Staff demands and resources	4	"I felt stupid having to ask all day long" (N-H1); "My first day in the emergency resuscitation unit… I didn't stop crying." (N-H4)
	5	"We are the experts in ICU, but they forget that." (N-H7)
Social and institutional demands and resources	6	"They lied to us and didn't plan ahead" (D-H16); "We felt abandoned." (N-H4)
	7	"Applause at eight o'clock and then some people reject me for working in the ICU." (NA-H10) "They are on the bar terraces like nothing and I'm going to have to risk my life again and my family's." (N-H12)
Category 2: Acute stress responses		
Emotional responses	8	"We have experienced a roller-coaster of emotions" (NA-H10); "I go from joy to weeping in seconds." (N-H11)
	9	"I am tense and irritable all the time." (NA-H7)
	10	"I felt guilty because the patients were not receiving what they needed in technical terms." (N-H3)
	11	"I moved home so as to not put my mother at risk." (D-H4)
Cognitive responses	12	"It's like a feeling of carrying the hospital inside you." (N-H3)
	13	"I feel incapable of focusing my attention, like being absent-minded." (NA-H16)
	14	"I didn't stop thinking about that family's situation." (N-H16) "It's not normal to have these kinds of thoughts about patients when you're back home." (D-H11)
Behavioural responses	15	"Each time after leaving the hospital… I don't want to go back to work." (NA-H12)
Dissociative experiences	16	"I disconnect from my emotions." (N-H1) "A nightmare, like a Netflix film." (N-H6)
Category 3: Personal and professional consequences		
Individual well-being and health	17	"I have stiff muscles and a headache" (N-H16); "Arrhythmias and unbalanced pressure." (NA-H15) "I can't get to sleep and when I do I have nightmares." (N-H15)
	18	"It's like I'm alert inside and outside the hospital." (O-H11)
	19	"Deeply sad and I don't feel like doing anything even when I'm free." (NA-H12)
	20	"In my family I don't talk about the experience, so as not to worry them." (NA-H7)
Occupational health and well-being	21	"I've had to do war-time medicine." (D-H16)
	22	"I've chosen the wrong profession." (N-H2); "Right now I would change my job." (N-H13)
Category 4: Protection factors		
Group cohesion and social support	23	"I felt a lot of pride many times when I saw how we were all working." (N-H12)
	24	"Like a little family." (N-H6)
	25	"I felt good when we skipped the instructions with that family." (N-H1)
Functional coping strategies	26	"Vermouth on Sundays or meeting up for five minutes in the hospital doorway at the end of the shift." (T-H1)
	27	"Learning helps me as a strategy for control" (N-H15); "A lively keenness to learn and refresh." (D-H16)
	28	"We're not the same…grateful for life because my family is with me." (D-H15) "It has enabled me to reconnect with my profession." (D-H16)

H= Hospital; D = Doctor; N = Nurse; NA=Nurse assistant; O = Orderly.

hypertension, tachycardia, headaches, digestive disorders and changing sleep and eating habits; (2) emotional health, with signs of anxiety such as anguish, nervousness, a feeling of imminent danger, symptoms of a depressive nature with great sadness, despair, loss of interest or enjoyment in daily activities and (3) social health, with avoidance of social groups, friends and even family.

'I don't want contact with people. It's a complete feeling of rejection. They annoy me. I don't want to go anywhere where people have been and, I have to interact with people, even if that sounds bad.' (Doctor, Hospital 16).

Subcategory 2: Occupational health and well-being. The workers reported feeling emotionally exhausted at work and mentioned moral distress as regards questioning dignified end-of-life procedures and assigning resources during the crisis situation. *'We are very burnt out, emotionally and physically exhausted with the work'* (Nurse, Hospital 15); *'The doctor takes the decision, but we carry it out'* (Nurse, Hospital 3). Some workers expressed demotivation regarding their occupational calling and questioned their professional future.

5.1.4 | Protection factors

Subcategory 1: Group cohesion and social support. The main protection factor identified was group cohesion and the work team as the place where one could share emotions and experiences and feel understood. By far, most workers stressed that working together in these times created a tighter bond and cohesion. Those who were already colleagues bolstered their relationship and trust, while those who were together for the first time made a discovery through connection and the support received: *'If a nurse was in the box with the PPE caring for a patient, when she finished their tasks, often continued with other patients in order to prevent you from PPE donning and expose yourself'* (Nurse, Hospital 8). *'It is overcome everyday thanks to the support of peers.'* (Nursing student, Hospital 16). Feeling proud of a job well done was especially important to those who perceived that they were going beyond the protocols and gave better care to the patients. Some highlighted positive styles of leadership as an element of support.

Subcategory 2: Functional coping strategies. The possibility of recovering little personal routines was highlighted, even though the main coping resources were collective such as team support, sense of humour and shared learning. These types of functional strategies being put into action enable some workers to perceive a change in values and reconnect with the sense of the profession: *'Now I look at things differently. Before, I placed importance on things that now I don't even look at.'* (Nurse, Hospital 1).

5.2 | Satisfaction survey results

At the end of the intervention, 17% (n=262/1,541) of participants answered the satisfaction survey. The mean satisfaction with the intervention was high in all dimensions: general objectives of the intervention (8.06; SD=2.01), specific aims (8.15; SD=2.08), technical aspects (7.55; SD=2.34), psychology professionals (9.26; SD=1.4) and general satisfaction (8.5; SD=1.99). The 96.2% (n=252) of the participants would recommend this intervention. The mean results of each item of the satisfaction survey are shown in Supplementary File 2.

In the open-ended questions, the participants highlighted the psychologists' empathy, closeness and listening skills. They also pointed out the opportunity that support groups provide, as a space for group cohesion and to facilitate express emotions. The frontline critical care workers demanded more time for the intervention. They emphasised the perception that it could have started earlier and referred to the importance of integrating a psychologist as part of the multidisciplinary team in the ICU. Table 4 shows the results of the items and the responses to the open-ended questions in the satisfaction survey.

6 | DISCUSSION

This study has presented a psychological crisis and emergency intervention carried out in the first phase of the COVID-19 pandemic with healthcare and non-healthcare critical care workers. With it, we have explored the frontline critical care workers' process of stress, the protection factors against it, and satisfaction with the intervention carried out.

The content analysis of the reports after the interventions shows us a significant imbalance between the demands of the job that the frontline critical care workers had to tackle and the resources necessary to meet them. The Job Demands—Resource Model (Bakker & Demerouti, 2007) is one of the main explanatory theoretical frameworks for the process of occupational stress and other variables related to the job such as burnout or engagement. This model explains how the two factors (demands and resources) have direct effects on health and motivation as well as indirect and interactive effects on the worker's well-being since the personal and group resources can cushion the unfavourable effects generated by high demands in the context of the workplace (Bakker & Demerouti, 2013). Coinciding with the result of other qualitative studies on critical care workers (Fernández-Castillo et al., 2021), the participants highlight feeling overwhelmed by the demands generated by the pandemic in the ICU, for which they lacked sufficient occupational resources. This fact would explain the acute stress responses indicated and their consequences on individual and occupational well-being. This was of utmost importance for non-healthcare workers and students who felt unprepared in PPEs training and often the 'last on the list' to learn protocols and procedures. Studies prior to the pandemic in healthcare staff using the resources-demands explanatory model confirm that this imbalance is related to workers' mental health and may even influence patients' safety (Cheng et al., 2020). On the other hand, the presence and development of adequate occupational resources enable nurses to cope with the difficulties with an improvement in emotion regulation in their

TABLE 4 Results from the satisfaction survey

Satisfaction with the intervention (n=262)	General aims	Specific aims	Technical aspects	Psychology professionals	General satisfaction	Would they recommend the intervention?
	8.06 (2.01)	8.15 (2.08)	7.55 (2.34)	9.26 (1.40)	8.50 (1.99)	252 (96.19%)

Results From the Satisfaction Survey's Open-Ended Questions

What did you most like about this intervention?

- *‘What I most appreciate has been that the psychologist created a state of trust where each of us has been able to speak clearly about our feelings and dramas during COVID, because it has been an event that will mark a before and after in our lives and above all in our professional life.’*
- *‘On being in a group, you're aware that your colleagues have had the same feelings and emotions, and it generates a familiar atmosphere of absolute trust.’*
- *‘What I most appreciate is having been able to fall back on this resource. It's the first time that the stress and emotional consequences for staff have been recognised, as well as for the patients admitted to the ICUs, not forgetting their families. It's true that the circumstances have been devastating, but one is grateful for this little respite of understanding.’*
- *‘The accessibility of the psychologists with sessions during work time. The possibility of sharing the experience and feelings with the group one has worked in.’*

How do you think we could improve this activity?

- *‘By having this service always available to the staff, not just in these times we are living through now.’*
- *‘Having it with us from the beginning.’*
- *‘I think the psychologists in critical care settings should not be a one-off. They should always be a part of the teams, since there are difficult situations experienced daily, not only by the patients, but also the families and professionals. And the need for them is continual.’*

Would you highlight any need detected in the ICU that you would like to see met in future?

- *‘The need for professionals to help us (for staff as well as families and patients) in coping with situations of fear, the closeness of death, anxiety, etc.’*
- *‘To include these professionals within the critical teams continually, whether it's with daily, weekly visits or referrals if necessary. And I think they would improve the work of the teams and patients’ hospital stays and families in critical care services.’*
- *‘In general, I would highlight having a space for professionals to express emotions and find things in common.’*
- *‘Psychologists in the ICU, now!’*

workplace (Blanco-Donoso et al., 2017). These facts are essential in providing support interventions for healthcare workers in the pandemic since the increase and development of individual and group resources will be essential to prevent and control aspects that we know affect this population, such as an increase in moral distress, emotional exhaustion as a dimension of burnout and variables of mental health like anxiety, depression and dissociative experiences when faced with the critical situation experienced (Azoulay, De Waele, et al., 2020; Silverman et al., 2021).

Coherently with this importance of fostering resources as a way of directly and indirectly influencing the workers' emotional well-being, strengthening group cohesion and social support will be especially interesting. This dimension appears as the main functional coping strategy in this study, and the result is not detached from the specific characteristics of ICUs. These units are settings where teamwork, carried out in an interprofessional way with a common goal, forms part of what workers consider the meaning of the job and takes on special importance in appropriately caring for patients and families (Donovan et al., 2018). This characteristic shows even more clearly the collective experience of situations with high emotional demands that can be potentially stressful. Based on Peiró's proposal to study multi-level and cross-level stress coping (Peiró, 2001), we must consider occupational stress as both an individual and group phenomenon, since the workers share their experiences, the structural aspects that affect those experiences, the sources of group stress and coping strategies. As regards the latter, the model indicates that 'group' strategies that follow shared criteria and goals will be more effective in coping with common experiences of stress (Peiró, 2001; Rodríguez et al., 2019). The support groups held in this intervention fostered reflection and development of aspects concerning the coordination of work, the team's interaction with patients and relatives and social support from workmates, as well as the cohesion of the multidisciplinary team. All of these are group elements for coping with stress and they have been indicated by the participants as essential in coping and handling this pandemic situation in the ICUs.

The workers' satisfaction with the intervention carried out is very high and, 96.2% of the participants would recommend it in future. However, participants' satisfaction has been undermined by the low response rate and, the results should be read with caution. The nature of the ICUs work, the work overload and the need to work with PPEs are elements in this pandemic that have hindered access and transport of workers to potential support activities in other areas and hospital settings. Moreover, recent meta-analyses on psychological interventions with healthcare workers report that often the workers most affected and with most needs for emotional support are those that least request it or make consultations (Bell & Wade, 2021). As pointed out by Pacheco-Tabuenca et al. (2008), the effectiveness of a psychological crisis intervention increases directly with its closeness in both time and place to the event. In our case, the intervention in the first phase of the pandemic and in the workplace of the target population itself has been classified with a high level of satisfaction. The design of the intervention and the psychologists' specific training to carry it out has helped achieve the proposed goals and for it to be clearly perceived by the users, who have evaluated the support received very highly (with a general satisfaction of 8.5 out of 10) and shown special recognition of the professionals who carried it out (with an evaluation of 9.26 out of 10).

The results of this study have shown two realities that should be reflected upon and be addressed; on the one hand, the need to create a critical care nurse specialisation that will enable more expert nurses trained in caring for critical care patients to be available; and on the other, the need to introduce psychologists fully integrated into the ICU's interdisciplinary teams, which coincides with the generalised demand in the Spanish National Health System, where the pandemic has shown the effects of the previous shortfall that must be corrected to tackle this crisis and for the future (Chacón-Fuertes et al., 2020).

This pandemic has overturned the many steps for humanisation that were being put into practice in ICUs (Nin-Vaeza et al., 2020; Velasco-Bueno & Heras-La Calle, 2020). The care of critical care workers is one of those priority lines for action (Gálvez-Herrer et al., 2017). Only if we care for them will we be able to provide suitable healthcare assistance and humanised care for patients and relatives.

6.1 | Limitations

This study has some limitations. The psychological crisis and emergency intervention were geared towards an intervention purely in terms of assistance in order to give psychological support. For this reason, the participants' sociodemographic data were not gathered. Secondly, given the confidential nature of the intervention and the emotional responses arising from such an intense, emergent situation, it was decided not to audio-record any of the interventions. The retrospective analyses of the session reports might have affected the accuracy of the data collected. Nevertheless, bias in interpretation has been reduced by using a standardised form for the report, including textual words and quotations from the participants. Thirdly, the satisfaction with the intervention was evaluated using a non-validated *'ad-hoc'* survey to test the quality of the programme. Previously, the authors have considered using a validated survey but there was not a validated instrument to test the satisfaction with a psychological crisis intervention in our language. Lastly, the overall response rate from participants to the satisfaction survey was low likely due to the pandemic fatigue, that difficult answering call from researchers and, the use of a web survey so, these results should be interpreted with caution.

7 | CONCLUSIONS

The frontline critical care workers during the COVID-19 pandemic perceived an imbalance between the occupational demands and available resources to meet them, generating stress responses. A psychological crisis and emergency intervention helped them to verbalise and integrate the situation, providing strategies to cope with the experience with a high level of satisfaction from the participants assisted.

Stress responses generated in critical situations must be evaluated and dealt with as 'normal' reactions to an 'extraordinary' situation through which our body attempts to cope in order to recover its mental balance. From that perspective, psychological interventions should not be considered an action to address psychopathological problems, but as interventions in health of a proactive, preventive nature, giving support to help and set up the individual's own resources, the work team and the acquisition of new functional styles of coping. Crisis and emergency psychology actively meet this goal, and this intervention gives an example of how it can be applied to foster workers' psychological and occupational well-being beyond out-of-hospital emergencies where it is usually applied.

8 | RELEVANCE FOR CLINICAL PRACTICE

The results of this study reflect that, during the COVID-19 pandemic, support groups guided by psychologists in the ICUs fostered reflection on aspects related to work, interaction with patients and relatives and social support from workmates that help them for coping with stress, share emotions and experiences and feel understood.

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to all healthcare and non-healthcare critical care workers who cared for critical care patients during the COVID-19 pandemic and the psychologists who cared for the careers. We would also acknowledge the collaboration of the Cátedra de Humanización de la Asistencia Sanitaria from the International University of Valencia, Proyecto HU-CI and ASISA for their support in the translation of the manuscript.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DISCLOSURE

The authors declare that this manuscript has not been published or disclosed in any other medium or place.

AUTHOR CONTRIBUTIONS

Conceptualisation and study design: MCH and GHLC; Collection and analysis of data: MCH, GVC and JAS; Manuscript writing: MCH and GVC; Draft revision: JAS and GHLC; Approval of the final manuscript: All authors.

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How to cite this article: Gálvez-Herrer, M., Via-Clavero, G., Ángel-Sesmero, J. A., & Heras-La Calle, G. (2021). Psychological crisis and emergency intervention for frontline critical care workers during the COVID-19 pandemic. *Journal of Clinical Nursing*, 00, 1–15. https://doi.org/10.1111/jocn.16050