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METEOR

Mental Health: Focus on Retention of Healthcare workers

Report first round of workshops

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Introduction

Healthcare

Multiple European countries are facing challenges in job retention and recruitment of healthcare workers. These challenges represent a multifaceted phenomenon, which can be attributed to many factors. Literature shows that they are primarily driven by demographic changes in the population, an increasing demand for healthcare and a growing number of chronically ill patients (1). Also, some of the shortages are generated by financial cutbacks by which governments and employers are limiting the recruitment of healthcare workers. These financial constraints impose an additional burden on healthcare organizations, which results in a decline in productivity and healthcare quality, as well as an increase in workload, stress and mental health problems (2).

European hospitals in particular are confronted with high turnover rates (especially regarding healthcare workers) as well as austerity measures (1). This resulted in less investment in recruitment, replacement and retention to meet their saving targets (3). In the current COVID-19 crisis, hospitals are under additional pressure due to acute stress, frustration, isolation and a high risk of infection. In many studies, we observe an increase in intention to quit the job and the healthcare sector. On the long term, we can expect additional dropout due to long term mental health problems among medical staff because of COVID-19. The workforce in particular is vulnerable to these growing job demands during and after COVID-19 (4).

High turnover is considered one of the major contributors to the outflow of healthcare workers in EU countries (2). It is considered dysfunctional on multiple levels, including financial loss related to recruitment and lost revenues, patient care costs, such as a loss of care continuity and patient dissatisfaction, declining productivity and decreasing staff morale among the remaining staff. Decreasing staff morale might even lead to further turnover among the remaining healthcare workers (6).

Literature reports that turnover intentions are one of the critical predictors of turnover among healthcare workers (7). The intent to leave is considered one of the stages in a complex decision-making process that leads to turnover behaviour (8). The connection between turnover intention and actual turnover has been widely studied using the theory of planned behaviour from social psychology. This theory has become one of the most influential models for the prediction of human behaviour and it states that attitude, subject norms, and perceived behavioural control, together lead to someone's intentions and actual behaviours (9).

Additionally, a focus on intentions to leave is recommended as these intentions could potentially still be influenced by policy makers and managers in order to prevent actual turnover (10). The reasons that trigger healthcare workers' intention to leave are complex and are influenced by multiple individual and organizational factors. A recent systematic review on determinants of nursing staff turnover indicates that job satisfaction, stress, and burnout are crucial individual turnover determinants in this working population (7).

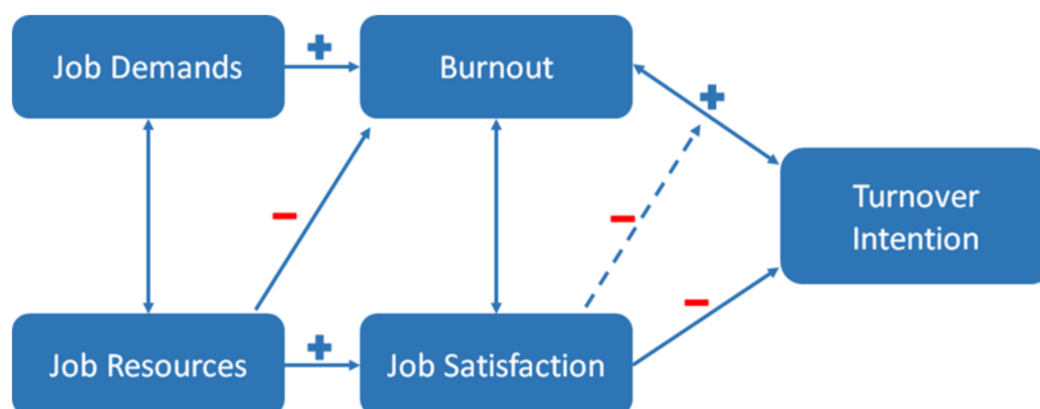
Theoretical framework

Research states that there is considerable evidence of the negative relationship between turnover (intentions) and job satisfaction (11–13). The reasons for job dissatisfaction are various and include feelings of being unable to provide high quality care to patients, dissatisfaction with staffing and workload and dissatisfaction with salary. Hence, an increased job satisfaction leads to healthcare worker's intent to stay and decrease turnover (11–13). Further, work-related stress and burnout are consistently positively associated with intention to leave (including leaving the profession) in multiple studies among healthcare workers (14). Having adequate physical and mental health is a prerequisite to perform well, meaning that job demands can be met. When this is not the case, it will contribute to higher turnover intentions (10). Moreover, work pressure and burnout risk are frequently cited reasons for early retirement among healthcare workers (15).

Other potential individual determinants include socio-demographic characteristics, such as age, gender, education, work experience and family status, however their link with job turnover is not that straightforward and is affected by many potential confounding factors, often resulting in contradictory findings (7). On the other hand, organizational determinants of job turnover include various positive and negative factors, such as work content, workload, role ambiguity, shift patterns, promotional opportunities, job climate, etc. but also interpersonal determinants, out of which managerial style and supervisor support seem to play the major role. In fact, many of these factors were not only associated with intention to leave, but also with burnout and job satisfaction and are either protective for turnover intention and burnout and hindering for job satisfaction or vice versa (16–18).

In order to structure the job related determinants associated with all our intermediate and final outcomes of interest (job satisfaction, burnout, and turnover intention), we use the theoretical framework offered by the Job Demands-Resources (JD-R) model (19). This model was developed in the context of employee well-being and work-related stress and the idea behind it is that every occupation has its own specific job demands and job resources. Job demands are all aspects of the job that require continuous physical or mental effort and are therefore associated with a certain cost. Job resources, on the other hand, stimulate personal growth, lead to achieving goals and reduce the costs of job demands. Job satisfaction, burnout and turnover intentions are considered the result of a complex set of interactions between job demands and job resources. The associations between job demands, job resources, job satisfaction, burnout, and turnover are illustrated in *Figure 1* and are based on findings from the above mentioned literature.

Figure 1: Job Demands-Resources Model adapted to turnover intentions (12,19)



Objectives

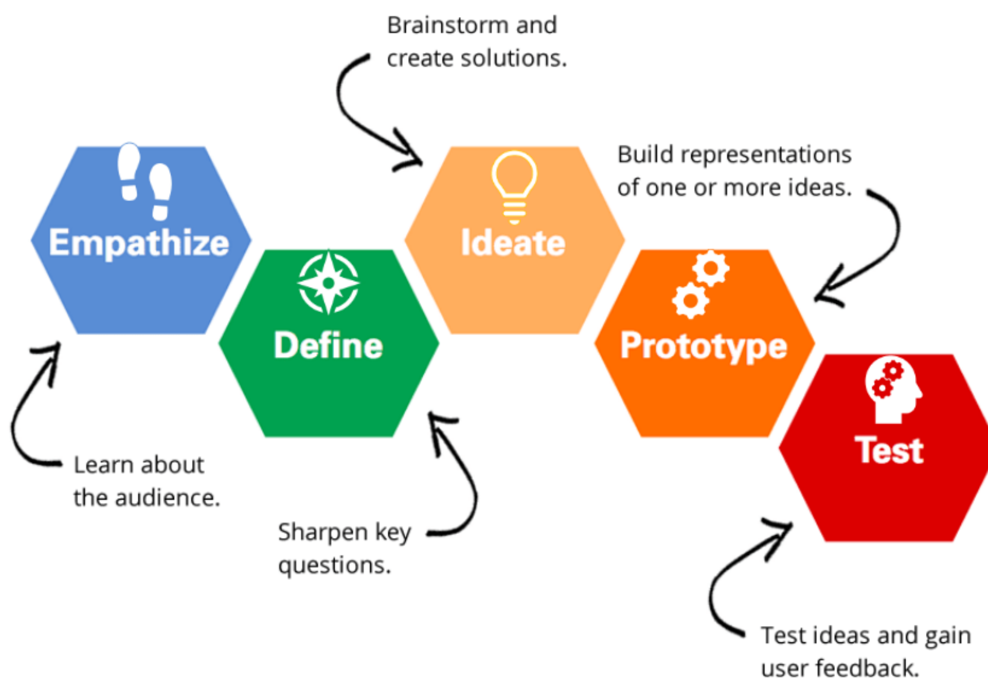
One of the specific objectives of the METEOR project is to design policy recommendations that address the identified determinants of job retention by continuously involving key stakeholders in consensus-building and co-creating workshops. The first four workshops (one in each participating country) have two objectives : (i) presenting the (preliminary) results of the METEOR project and brainstorm on job retention in healthcare; and (ii) discussing potential interventions to reduce job retention in healthcare. In the following four workshops, we will focus on creating, experimenting and iterating policy recommendations tailored to the needs of the key stakeholders. To finalise the policy recommendations, we will follow a Delphi-inspired approach, as we will ask iterative advice from policy experts on the co-created policy recommendations. In this report, the results of the first round of the workshops are summarized per country.

Methodology

The methods used during these workshops are based on 'user-centered design thinking' or co-creation. This approach includes an iterative, creative and interactive process, where stakeholders are involved in every phase of the process (from design until implementation). To meet the needs and requirements of the key stakeholders, co-creation defines three principles: (i) early and continuous involvement of users and other important stakeholders, (ii) the understanding of user requirements and the whole user experience, and (iii) the iterative process between users, researchers and developers. *Figure 2* shows the five key steps in the 'user-centered design thinking' approach to implement these principles (20):

1. Empathize, understand and specify the context;
2. Define the user requirements and needs;
3. Ideate and design solutions to meet user requirements;
4. Produce and prototype possible solutions;
5. Test and evaluate the solutions against the requirements.

Figure 2: User-Centered Design Thinking Framework (20)



Examples of specific methodologies include, among others, persona's, customer journey, image boards, card sorting, Lego serious play, narrative storytelling, mind-mapping, etc. (21). For this workshop , we included the following exercises (*Table 1*):

Table 1: exercises workshop 1

Name	Description
Ice-breaker or warm-up exercises	'Ice-breakers' are exercises that provide a quick and effective way to start an interactive workshop, and that aim to warm-up the participants. This study used the following one ice-breaker, to which participants could respond through sticky notes on the Miro board: *'If you could only eat one more thing for the rest of your life, what would it be?'*
Case-based brainstorm	During the 'case-based brainstorm', 15 random and imaginative pictures were shown to the participants. Each participant could pick one or maximum two pictures that

	reminded them of a situation linked to job retention among healthcare workers. Using pictures in a brainstorm exercise facilitates creative thinking and helps participants to brainstorm.
Idea Napkin	'Idea Napkin' is an exercise to generate ideas individually, and pitching them to the other participants to receive feedback and additional ideas. This facilitates the process to further elaborate your idea and make it ready for implementation.
Stakeholder mapping	'Stakeholder mapping' is a visual exercise in which participants consider and organise all stakeholders involved with or affected by the mental health and burnout risk of medical students. Participants do this in groups of two to five people to inspire each other and discuss possible stakeholders.

Practical set up of the workshops

The workshops were conducted in the native language of each country (Flemish, Dutch, Polish and Italian). All workshops were held online via Microsoft Teams and were supported by the use of Miro boards. Miro is a free, easy-to-use virtual whiteboard that allows collaboration and interaction with participants. All exercises were prepared in Miro and translated to the native languages of each country. Invitations were sent out via the hospital contacts, which included a leaflet with a Google Forms link for which participants could register. All registered participants received a confirmation mail with additional information, a Teams invite and instructions beforehand to log in to Miro. A reminder mail was sent the day of or before the workshop. During each workshop there was a moderator and technical support. *Figure 3* shows the Miro Board developed for the first co-creation workshop.

Figure 3: Miro Board METEOR Workshop 1

Link to the online Miroboard: https://miro.com/app/board/uXjVMaVZAak=/?share_link_id=831038627641

Data analysis

All workshops were transcribed and translated into English. The workshops were analysed via thematic analysis as described by Braun and Clarke (2006). Braun & Clarke (2006) distinguish six different phases in this process. First, familiarise yourself with the data through repeated reading in an active way. Transcribing the workshops is considered part of this first phase. Second, generate some initial codes of what the data is about and what is interesting. As a third step, you have to re-focus to a broader level of themes and consider how different codes may combine in an overarching theme. Phase four involves further refinement of those themes. Some themes might disappear, while others broken down into separate ones. Fifth, you redefine the essence of each theme and analyse the data with them. Finally, once you have a set of fully worked-out themes, you write-up the report where you convince the reader of the merit and validity of your analysis (22).

Theoretical framework

Seven METEOR consortium members, Neeltje De Vries, Anke Boone, Lode Godderis, José Bouman, Szymon Szemik, Domenica Matranga and Peter De Winter, conducted a systematic review in 2023 called *'The Race to Retain Healthcare Workers: A Systematic Review on Factors that Impact Retention of Nurses and Physicians in Hospitals*' (23). In this review, the authors discussed the main push and pull factors that determine the intention to leave among healthcare workers and categorized them into six themes: (1) personal characteristics, (2) job demands, (3) employment services, (4) working conditions, (5) work relations, and (6) organizational culture. We have used these themes as a guideline for our own qualitative thematic analysis of the first round of workshops with physicians and nurses in Belgium, the Netherlands, Poland and Italy. A short summary of each theme is provided below (23):

- ***Personal Characteristics:*** De Vries et al. (2023) considered multiple personal characteristics, such as age, gender, household structure and educational level. In addition, also some other determinants were included such as good personal health, relationship status, self-efficacy, lack of passion for patient care and interpersonal conflicts.
- ***Job Demands:*** As expected based on former research, De Vries et al. (2023) found that job demands show high correlation with someone's intention to stay in the job. Job satisfaction and burnout symptoms can be considered important factors that influences someone to stay or leave their job. Furthermore, ethical dilemmas at the workplace also show a relation with someone's intention to leave. Among the quantitative job demands, the authors mention the quantitative workload, emotional workload, break disturbances, stress at work and not-patient related work as determinants for intention to leave. Conversely, patient-related work gives energy and reduces someone's intention to leave.
- ***Employment Services:*** Among employment services, De Vries et al. (2023) consider a good salary and other forms of rewards, or the lack of it, as a determinant for intentions to leave. Learning and development opportunities reduce someone's intention to leave, while a lack of career opportunities and promotions increase their chances of leaving. The work schedule, irregular working hours, shift work and on-call duties also increased intentions to leave the job.
- ***Working Conditions:*** Several working conditions have a positive or negative impact on healthcare workers' intention to leave. The authors discussed the administrative burden, work infrastructure, patient safety, mortality rates, patient satisfaction, quality of care and adequate staffing. Furthermore, they looked at the work pace, job strain, social support and the work-life balance.
- ***Work Relations:*** Nurses and physicians benefit from social support from colleagues, good communication, appreciation and positive feedback from their supervisor, effective teamwork, good interprofessional relations and mutual respect, according to De Vries et al. (2023). Conversely, conflicts, unfair behaviour and bullying increases the intention to leave.
- ***Organizational Culture:*** A workplace that emphasizes respect, humanity and reciprocity decrease healthcare workers' intention to leave. In addition, this positive work culture includes good leadership, social support from the supervisor and positive management.

Results

Belgium

The first co-creation workshop in Belgium was organised on Wednesday 16th November, had 12 participants and took place in the evening from 6 until 8.30pm.

To summarise, the recommended interventions by all 12 participants were the following:

1. Receive regular appreciation and constructive feedback from supervisors and/or management. Even a small gesture, like a new year's gift for all employees (not only the ones working at new year's evening), would be highly appreciated.
2. Wrap-up team meetings with clear actions and agreements, that are followed-up upon by all participants. This would end the long-lasting discussions and consequently reduce stress at the workplace.
3. Include caretakers more in the healthcare teams by, for example, connecting each caretaker with a nurse, instead of only giving them logistical work. In some departments, they are left out of the team which makes them feel isolated.
4. Provide and prioritise time for monthly team meetings to proactively discuss problems, conflicts and frustrations, in order to avoid escalations and people leaving their job.
5. Reduce the non-patient related work of nurses and physicians, by outsourcing some of this work to caretakers or other logistical staff.
6. Facilitate interprofessional communication to enhance collaborations and reduce frustrations towards other functions, specialities or professions.
7. Stimulate internal mobility of staff. The place to discuss this could be the annual feedback conversations, where the employee are able to mention their interest to work at another department or position.
8. Conduct annual feedback conversations. Currently these conversations should occur, but they are regularly cancelled due to a high workload.
9. Organise a car-sharing system to reduce travel costs for employees, to ensure people do not leave the hospital because of commuting problems.
10. Organise scenario training for specific cases and problems to increase technical skills, which should take place within working hours.
11. Prioritise positive feedback and make it part of the work culture, instead of focussing on mistakes. This should include all hospital staff, such as management, cleaning staff, physicians, caregivers, nurses, etc.
12. Learn and give information about colleagues with autism, or any other specific needs, to increase team work and mutual understanding among colleagues.

Personal Characteristics

All participants were nurses, no physicians participated. Of the 12 participants, 10 were female and 2 were male. We did not record the education level, nor any other personal characteristics.

Job Demands

As job demands are strongly related to burnout, and consequently to turnover intentions, a significant part of the workshop was devoted to this topic. During the workshop, Belgian participants discussed the quantitative workload, the emotional workload, staffing shortages, an increase in non-patient related work and a lack of opportunities for ambitious healthcare workers.

The overall high quantitative workload in combination with a shortage of staff and difficult working hours were the most often cited job demands during the workshop. With regard to the heavy workload, another participant explained that the work pressure does not only come from management, but also from patients and the family

of patients who seem to be demanding more. Furthermore, the participants said that it sometimes seems like they go from one busy season into the next one with a constant shortage of staff.

It is believed among the participants that the workload has been increasing throughout the years. One participant emphasized that this could be attributed to the increase of non-patient related work, such as administrative tasks, training students or keeping track of equipment. This was confirmed by all the other participants and they expressed their worries in this regard: *"What also happens often lately is, um, everything has to be registered, inventoried, yes, I'm more often at my computer than with my patients."* Another participant answered to this with the following quote: "*It's the same with us, often you spend more time on the administrative work than you do with your patient.*".

As an example, a participant mentioned the amount of time registrations they are required to do. Recently, her team received complaints from management that they are not registering their working hours properly, which frustrated her for the following reason: "W*hen should I do this? The moment I put my patient on the table to be sedated, I cannot walk back to my computer and start the time registration, right? When that is finished, I have to walk back immediately to my computer to stop the time registration, allez, it's... It's crazy.".*

During the workshop, solutions and suggestions for interventions were made to address the increase in non-patient related work. One intervention that came up was the appointment of a non-medical person who could conduct certain non-medical administrative tasks. The participants were aware that writing medical reports after a consultation was administrative work that they could not outsource, because you need to have a background in medicine. Nevertheless a task like making and updating an inventory of the (medical) equipment could be conducted by a person without a background in medicine.

Due to the high workload and staff shortage, some healthcare workers were unable to pursue their career aspirations with in their respective hospitals. One participant recounted a colleague's desire to acquire expertise in conducting MRI (Magnetic Resonance Imaging) or CT (Computerised Tomography) scans, but was unable to do so due to the hospital's requirement to retain him in his current department due to staff shortage. However, the individual remained in the healthcare industry, but sought employment at another hospital where the opportunity to learn more about MRI and CT scanning was presented. In addition, another person shared their experience of management informing them that their ambitious personality will make them leave the hospital in a short time span because they may not remain content. Such remarks were demotivating for the participant, despite their desire to stay.

The emotional workload of healthcare workers is closely linked to the overall work pressure they face. One participant highlighted the difficulty of coping with patients' distress on a daily basis. Nurses and caregivers, in particular, are constantly at patients' bedsides and are tasked with mitigating suffering. Additionally, they must communicate with families in highly precarious situations and often deliver unfavourable news repeatedly. This responsibility is a weighty burden to bear. Within this context, the participant is sometimes confronted with ethical questions, such as how long should we keep on pushing to keep someone alive? Is it really necessary to do this at all cost? These issues and queries contribute to their emotional workload.

A participant made an interesting observation regarding the interconnection of various job demands, resulting in a self-perpetuating cycle. The cycle initiates with healthcare workers encountering an excessive quantitative workload, leaving them with insufficient time to arrange team meetings that allow team members to discuss problems or experiment with new ideas. This situation may result in escalating frustrations and conflicts, because they are not being addressed, leading to certain employees quitting their jobs due to high workload and a negative work environment. Consequently, the burden on the remaining employees increases, leading to a continuation of the cycle.

Employment Services

A first interesting remark with regard to employment services, is that not one participant mentioned an intervention directly related to financial remuneration or an increase in their salary. Nevertheless, some interventions had an indirect link to it, such as setting up a car sharing system or providing new years-gift to show appreciation for the work done.

During the workshop, non-financial interventions were discussed, including the implementation of annual feedback conversations. As per one participant, such discussions are already in place, but appear to be a perfunctory obligation instead of a genuine chance for professional advancement. In addition, this participant explained that these feedback conversations should include the development and follow-up of an individual growth plan. This plan could address questions such as: What do you want to learn? What are your ambitions? What gives you energy? The supervisor should – according to this person – make time for this conversation and show real interest. Also, there should be a low threshold to contact the supervisor and the environment should be safe to be able to speak freely.

Another participant suggested that annual conversations job opportunities should also include discussions on job opportunities within the hospital, commonly referred to as internal mobility. This would allow healthcare workers to explore new avenues for professional growth without having to leave their current hospital. The participant emphasized that internal mobility was an excellent opportunity to keep one's job engaging and further develop professional skills. Furthermore, another participant said that internal job changes helped her to maintain a healthy work-life balance. This participant said: *"I myself have also changed shifts within [hospital] every six years, which is actually ideal to be able to do something well, and always on my own initiative in function of my family.".*

Nevertheless, some participants expressed reservations about internal mobility. One participant noted that frequently changing roles within the hospital could also be exhausting, as it takes time to adjust to a new department and learn new responsibilities. Moreover, constantly providing support to departments in crisis mode, which occurred frequently during the COVID-19 pandemic, can be draining. Ultimately, the participants concurred that the decision to move internally, for how long, and to where should be left to the employee's discretion. However, the opportunity for internal mobility should be available and encouraged if there is an interest.

Besides job and career opportunities, one participant suggested to organise 'scenario trainings'. Scenario training is a type of training where healthcare workers are presented with a series of hypothetical situations or scenarios that they may encounter at the workplace. The purpose of this type of training is to help participants develop technical skills and knowledge needed to handle complex cases.

Working Conditions

Working conditions can have a positive or negative impact on healthcare workers' intention to leave, and several of them have been discussed during the workshop, such work-life balance, having a meaningful job and commuting problems.

For the majority of participants, it is a challenge to maintain a healthy work-life balance due to night- and weekend shifts, and irregular working hours. One participant described it as follows: *"Work pressure, difficult and irregular working hours, shifts of ten hours, and a huge amount of overtime really adds up. Maybe this could be organised in a different manner."* Furthermore, a participant recounted the experience of a colleague who resigned from her role as a healthcare worker to prioritize spending time with her family and children. All participants acknowledged similar stories. Another participant elaborated that working full-time often resulted in social isolation during leisure time due to the extensive time spent working and limited opportunities for social interactions outside of work.

During the workshop, meaningful work was discussed as a protective factor against burnout. A participant shared their personal experience of pursuing a career in nursing to fulfil a childhood goal of working with patients suffering from pulmonary diseases, inspired by their grandparents' battle with lung cancer. This participant expressed great job satisfaction as a nurse.

Furthermore, the topic of transportation and commuting challenges between healthcare workers' houses and the hospital sparked a lively discussion on work-life balance. In the private sector, company cars or full reimbursement for fuel expenses are frequently provided to employees. While hospitals may initially deem such measures too costly, reducing nurse turnover rates could ultimately offset this financial investment. One participant shared the experience of a colleague who left the job due to commuting difficulties. While acknowledging that providing company cars may not be feasible, the participant suggested a car-sharing system as a potential solution. Conducting research on how other companies have implemented such systems and analysing their costs could be the first step in exploring this intervention. Moreover, a car-sharing system could promote informal conversations among colleagues who share transportation to work, providing an additional benefit.

Work Relations

Social support from colleagues, good communication, appreciation and positive feedback from the supervisor and effective teamwork were considered important protective factors during the workshop.

Three interventions out of twelve were proposed to address the issue of increasing appreciation and positive feedback from supervisors or management. The first intervention included the need for regular and genuine positive feedback, which should be extended to all team members, including cleaning personnel and leadership functions. The participant expressed that they received immediate negative feedback when making mistakes, but positive feedback was often overlooked. The second intervention proposed was the provision of small gestures, such as a new year's gift for all employees, not just those working on New Year's Eve, to increase feelings of appreciation for their hard work. The third intervention consisted of organising annual feedback conversations, which they believe would improve motivation, quality of work, and the sense of being valued as an individual.

The significance of supervisors and leaders cannot be overlooked in this context. One participant expressed their dissatisfaction with the healthcare manager of their department who has been in the position for several years but has made no effort to visit the workplace or contact the nurses and physicians. This lack of communication results in a considerable amount of stress and confusion, as the healthcare manager is responsible for deciding on shifts and other work-related issues. Another participant shared a similar experience, stating that although the healthcare manager in their hospital visits the workplace, they do not interact with anyone, and simply walk around without introducing themselves.

In addition to receiving support and appreciation from supervisors, social support from colleagues was also identified as a crucial factor by all participants. According to one participant, this is particularly important after a difficult day or a challenging emotional experience, such as a resuscitation of a young child. This participant emphasized the importance of having colleagues to talk to and share stress with.

The significance of teamwork and interprofessional collaboration was highlighted by the participants. Specifically, four of them recommended an intervention that directly relates to teamwork. Firstly, one participant proposed a system where the topics discussed during meetings are implemented. Transparent communication is vital, especially given the rise in specializations and positions within the different departments. All members should attend these meetings, documented agreements should be made and reviewed in the next meeting. If

issues arise, they should be discussed respectfully and transparently. In this regard, this person explained: *"For example, in our operation quarter there are rules about how many rooms are allowed to remain open after certain working hours, and every day again that leads to incredible discussions, where we have to find a solution. […] Euhm, and actually there is, every month, there is a meeting with everyone, but it seems that we all talk past each other, because every agreement that is made, is not followed.".*

Secondly, one participant suggested including caregivers in healthcare teams, as they are currently primarily involved in logistical tasks (such as serving food) that could be performed by non-medical staff. This person believes that caregivers are somehow excluded from the team, and proposes connecting them with nurses as a means of better integrating them into healthcare teams. While some departments already implement this approach, it is not yet standard practice across the hospitals.

Thirdly, one participant suggested providing regular opportunities (e.g. on a monthly basis) for teams to discuss frustrations and seek solutions, as this could prevent conflicts from escalating and personnel from leaving. Currently, there is limited time available to reflect on challenging situations, and by the time management calls a meeting to discuss a conflict, it is often too late. This participant believes that proactive meetings could help prevent staff turnover and improve team morale.

Finally, another participant suggested implementing a tool that can be used across all specialties to improve interprofessional communication, which is a particular challenge in their hospital. This could reduce frustrations and conflicts, and lead to better teamwork and communication. One participant exemplified the interprofessional conflicts by noting that *"The physician is the king, yes, that's what I think.*".

Organizational Culture

A workplace that emphasizes respect, humanity and reciprocity decreases healthcare workers' intention to leave. During the workshop, participants discussed topics such as a more 'human' environment, good leadership and intergenerational conflicts.

Overall, eight out of 12 suggested interventions were related to creating a more human work environment. According to the participants, this means that there should be more room for informal conversations, constructive feedback and efficient teamwork. Two interventions were related to receiving more positive feedback, and one on organising annual feedback conversations to ensure learning opportunities. Three of these interventions focused on the introduction of tools to improve interprofessional communication, another one on how to work with colleagues who experience different needs (e.g. autism) and the last one focused on how to better include caretakers in the healthcare team.

During the workshop, there was extensive discussion on the role of leadership and supervisors. One participant suggested that leaders should be appointed who will not abuse their power, as such leaders can cause people to leave or increase their risk of burnout. The participant further emphasized that good nurses do not necessarily make good leaders. Another participant added that management and leaders tend to stay in their offices instead of interacting with colleagues at the workplace, which creates a significant distance between supervisors and the workforce.

Additionally, a participant shared that she left her department due to an authoritarian supervisor, and unfortunately, she was not the only one who left for that reason. Good leaders should create space for the well-being of their employees and listen to their needs or problems. Several participants mentioned that healthcare workers feel left out or alone because their ideas are often ignored or dismissed by their supervisors. She explains: *"I have left intensive care. […] because we had a head nurse who was not very open to ideas from the team, so we were blocked all the time, um, and we, new ideas of methods were just not looked into. […] I was the first to leave, but by now I think already ten people left or have had a burnout."*

The workshop also discussed intergenerational conflicts at the workplace. One participant noted that such conflicts can result in misunderstandings, frustrations, and disagreements. Another participant mentioned that the loss of retired colleagues can be a challenge. Retired colleagues possess a wealth of experience, while new healthcare workers need training, which requires additional time and effort from the senior staff who are already overburdened.

The Netherlands

The first co-creation workshop in the Netherlands was organised on Monday 13th December from 5 pm until 7.30 pm and had four participants.

In summary, the four recommended interventions proposed by the participants are as follows:

- Facilitate employees' personal development by providing individual meetings where all possibilities are discussed, ranging from trainings to combining jobs.
- Conduct annual feedback conversations arranged by the higher hospital level where everyone's talents and interests are looked at and where innovative thinking is encouraged.
- Alleviate the workload in emergency care during busy times, such as evenings, by hiring additional support (i.e. caretakers), and creating additional vacancies for these positions.
- Invite decision-makers to visit the ward to improve communication regarding the changes being made and the resulting consequences for the workplace.

Personal Characteristics

The workshop had three female participants, and one male participant. All were nurses, no physicians participated. We did not record the education level, nor any other personal characteristics.

Job Demands

Three of the four participants emphasized the significant impact of high workload and pressure on job satisfaction and employee turnover. One participant noted that the workload had become so overwhelming that employees were retiring early, and another person exemplified further: "*I am talking in particular about an enormous workload that is experienced by employees, in such way that I have noticed that in recent years, well, this year in a four-month period five people are going into pre-retirement already at sixty-two/three, because they really say: guys, I really just don't like it this way anymore.*"

The participants also highlighted the added pressure of constant availability in emergency wards. The pressure to keep the department open and respond to emergencies through the emergency app creates a heavy workload for nurses. One participant stated: "*that is what I hear, what the nurses experience as an enormous burden, the work pressure linked to it, uh, the pressure that the department has to work, must be open and that emergency app that we have, well I don't want to say daily, but several times a week, it opens again.*"

On a national level, it was mentioned that emergency wards in the Netherlands do not use a universal care level measurement, which is a measurement instrument that measures departmental busyness. The participants agreed that recognizing this measurement could be a first step in addressing and solving problems related to workload. In addition, one participant highlighted the impact of practical changes and digitalization within hospitals, such as changes to apps, which can lead to frustrations and less time for care-related tasks.

Employment Services

Three out of four participants mentioned the importance of personal development opportunities within the hospital. One participant reported having had favourable opportunities for personal growth and now balances

their work as a nurse with serving on the advisory board at the hospital. This arrangement enhances their job contentment and mitigates the workload, as they are no longer a full-time nurse. This person cited: "*I think my profession is great, I really like the profession, but the conditions cause that I, I think, eh, that additional tasks ensure that the days that I have to work at the ward, I still very much enjoy it.*".

Nevertheless, it is crucial for these developmental opportunities to align with both the individual's interests and the hospital's needs. A career counsellor with knowledge of the hospital and its possibilities could provide valuable support for job orientation. As one participant stated: "*I just needed someone who knew the hospital and could provide opportunities for me within the hospital because it wasn't that I wanted to leave [hospital name] and leave my profession per se but i was looking for 'how can I keep my job fun.*"

An additional participant contributed that conducting annual meetings with hospital personnel at a higher level to identify their talents and interests could yield favourable outcomes. This person stated: "*If you talk to everyone separately and use their talents, interests, and also use them in their work, then of course you get a very dynamic hospital with all kinds of creativity."* Finally, another participant mentioned the implementation of job combinations, wherein employees alternate between two departments or work in a foreign country for a month.

Working Conditions

One of the participants discussed the high workload and suggested an intervention to alleviate this for nurses. This could be accomplished by hiring additional support staff, such as care takers, to assist during the busiest times. The participant stated: "*In terms of content, the care support is broad, which can range from, uh, purely supplementing the department, to uh, to, possibly depending on what someone can do, making ECGs, removing IV needles… So a really broad package. With this we relieve the emergency care nurses enormously, uh, so they particularly benefit from that. We can handle more because of that too.*"

Nevertheless, this problem should also be approached on a higher level, making sure less patients visit the hospital. This person explained: "*There comes no money, no additional staff, simply fewer patients must come to the hospital. The only problem is that we as emergency care are only a very small part of that, because then you are actually talking about the entire chain, eh, in which there are problems. Then the GPs would have to do more, patients would first have to go to nursing, care and home care themselves."*

Work Relations

One of the participants highlighted the challenge of collaborating with specialists from other wards. While teamwork within their own ward enhances job satisfaction, working with specialists from other departments can pose difficulties. The participant also identified that nurses are not included in decision-making processes at higher levels, and decisions are made without adequate consideration of the workplace and its implications. This issue is compounded by the heavy workload, which makes scheduling meetings with nurse specialists especially challenging, as the participant explained: "*I run a full consultation hour, so it is very difficult for me to organize all that, but in the end I did plan that for three clinics together, eh, one meeting. But because of my own work pressure, that has not really had a good follow-up.*".

Organizational Culture

One participant noted that their work was negatively impacted by various changes implemented within the hospital. These changes were observed on both an organizational and practical level, such as the implementation of a new app. The participant stated: "*All changes follow one another in a fast fast fast pace, and we can't keep up at the outpatient clinic, but certainly not the patients. It is reported to supervisors, to the medical manager, and no adequate action is taken to think along for solutions. We just got over the Covid and a reorganization follows for all heads of department and seniors, we can barely recover, breathe"*.

To improve the situation, it is important for decision makers to involve and consult the affected individuals, and to consider potential consequences and solutions. Inadequate communication and support with regard to changes can lead to frustration. Although exchanging information with other wards that have similar issues through meetings could be helpful, it may be challenging to practically set up and follow up on. One of the participants, who is a member of the professional association for nurses, mentioned that the main issues faced by nurses, such as the digitalisation of healthcare, are experienced at a national level.

Poland

The first co-creation workshop in Poland was organised on Monday 7th December from 5 pm until 7.30 pm and had 2 participants.

To summarise, the recommended interventions by the two participants were the following:

1. Reduce administrative tasks by hiring additional medical staff and secretaries. This would allow more time with patients and learning opportunities for residents.
2. Improve cooperation between doctors and nurses which should be mediated by managers and nurse supervisors.

Personal Characteristics

The workshop had 2 female participants, and no male participants. These were young physicians (residential doctors), no nurses or more experienced physicians participated. We did not record the education level, nor any other personal characteristics.

Job Demands

An important issue that was addressed by both participants was the enormous administrative tasks that physicians have. This affects the motivation as one participant cited: *"It's cosmically [i.e. tremendously, immensely] frustrating because that's not what we studied for, life is short, the day is short, time can be used differently, and I feel like I'm wasting time at work very much, that I could spend that time on something productive that actually makes sense. And I often don't see that sense in this job."*

The high job demands hinder learning opportunities for young physicians: *"There is no way to gain more knowledge about the disease entity of a patient in a hospital because we have to do some paperwork instead, enter statuses and organize a lot of different things, and I think that [gaining more knowledge] would be the main goal of it."*

Hiring administrative staff would therefore not only provide more time for education and patient care, but would also be cost effective as the participant cited: "*You wouldn't even need so many doctors if you solved the administrative problem. Because we..., I have this feeling that most of the day I act as a medical secretary and it completely misses the point. That's not what my education was about. So I think that from an economic perspective, the state is also wasting its money. Because that's not why we were educated for, that's not the reason for our employment to sit and write a pile of 'papers'.*".

One participant mentioned that she would rather work in research because it is more structured and less stressful than working with patients in a hospital. "*In general, I love research, I'm a big fan of it, I treat it as a hobby, so that's first of all, and secondly, it's a much less stressful job - in a team where there's not as much contact with the patient, while [working with patients] is often stressful - whether with the patient or his/her relatives. Because patients are very demanding and that sometimes increases the stress level of the job as well*".

Employment Services

An interesting remark was that the financial aspect was not necessarily an incentive to stay at the hospital. One participant mentioned that she was even willing to earn less if it is in better working conditions.

Work Relations

Efficient cooperation and solving problems together were mentioned to be an important pull factor during the workshop. A lack of cooperation between physicians and nurses was addressed as one of the problems. The participant cited: "*There is no joint problem-solving between individuals plus the ward and the head of the department, only somewhere between the head and the ward some problems are settled, and we are completely left out of what is going on there, and then the situation gets even worse*.".

During the workshop, participants noted a communication disconnect between young physicians and more senior nurses, with the former feeling a lack of trust from the latter. To address these issues, the participant suggested that hospital managers, as well as physician and nurse leaders, should hold regular meetings to discuss current problems and potential solutions. The participant also recommended regular brainstorming sessions that bring together doctors and nurses to confront and solve communication issues. According to the participant, this approach would be more effective than leaving the problem-solving solely to individual physicians and nurses, some of whom may be unwilling or unable to address the issues at their level.

Organizational Culture

Both participants expressed concern about the attitudes of patients and staff, as they found negative attitudes to be demotivating. According to one participant: *"Well, however, we should not accept certain things. Like [other participant] said with the nurses - it is simply unacceptable for a nurse to insult a doctor in front of a patient, or the behaviour of patients towards doctors. It also seems to me, I may be biased, but we [doctors] are trying so hard, so in my opinion, it is especially demotivating."*

One participant highlighted that this issue seemed to be specific to the country in which they worked, as she also had experience working in a Dutch hospital with a different culture. She noted that the organization and patient attitudes were completely different in the Netherlands, with a greater level of respect shown towards doctors by patients. Furthermore, there was a greater sense of professional responsibility at the level of medical boards, rather than individual doctors being held accountable in court. The participant emphasized that patients were more likely to trust and respect doctors in the Netherlands.

Italy

The first co-creation workshop in Italy was organised on Monday 5th December, had 11 participants and took place from 3 until 5.30pm.

To summarise, the recommended interventions by all 11 participants were the following:

1. Organise staff in hospitals according to their interests and experiences, instead distributing staff in the hospital to make up for staff shortages.
2. Enhance interprofessional teamwork through regular monthly meetings, where a safe space is created to discuss frustrations and problems.
3. Create groups to debate and to stimulate critical positive thinking among physicians, so they feel being part of a team and appreciated for their work.
4. Develop an onboarding intervention when staff moves to a different region or city. The impact of the intervention can be measured through a before and after survey.
5. Organise monthly team meetings in a neutral place (e.g. tea house) to discuss critical issues and improve job satisfaction among employees.
6. Reduce excessive workload by regularly monitoring working hours and rescheduling work if necessary.
7. Provide administrative staff or adequate digital tools to support healthcare workers with their paperwork.

8. Optimise work organisation and planning, by providing tools, support and trainings that can stimulate professional development.
9. Promote overall good health among healthcare workers, that will reduce stress, increase motivation and create more self-esteem.
10. Organise trainings to improve personal skills, based on evidence-based knowledge and scientific research.
11. Implement mentorship programs, to support healthcare workers, stimulate professional growth and provide rewards.

Personal Characteristics

The first co-creation workshop in Italy had 11 participants in total, with 6 male and 5 female participants. Five of them were nurses, and 6 were medical doctors. We did not record the education level, nor any other personal characteristics.

Job Demands

A regularly cited job demand was the quantitative workload that correlates highly with the well-being of healthcare workers and their intention to leave. One participant mentioned that the training period for physicians and nurses in particular is difficult and results in high pressure on their well-being. Nevertheless, there was consensus among participants that not only the training period is stressful. One participant described it as having a constant feeling that you don't have sufficient means to do the job in an adequate manner. Additionally, the work is very unpredictable, which – in this person's opinion – evokes a sense of constant precariousness, potentially resulting in chronic stress and burnout.

Connected to high work pressure are the staff shortages and constant work overload, which are, according to one participant, the main reasons why people leave the healthcare sector. More in particular, this person mentioned the exhausting shifts, unpaid overtime hours and difficulties to take holidays as problematic. As an intervention this person suggested periodic monitoring (e.g. quarterly) on the overtime and staff levels, resulting in adequate actions that should be taken to adjust the workload, staff levels, and patient care. An additional benefit of this monitoring system would be that healthcare workers feel heard by management. Furthermore, another participant added that staff shortages lead to a loss of talent and expertise. This arises when a healthcare worker has studied abroad and learned some very high-impact medical techniques, but cannot use it because he or she is required to perform basic activities to make up for shortage in staff.

In addition, multiple participants emphasized the importance to employ healthcare workers in a certain department according to their expertise and motivation, and not only because of staffing shortages. The issue addressed here is one of job satisfaction and professional growth. If the job opportunities that you receive in your workplace are not in line with your passions and ambitions, this person will be unsatisfied in the work and consequently more inclined to leave the job.

Among participants, there was consensus that the increased workload goes together with the ongoing process of "bureaucratization of healthcare". Besides the hospitals' increase of administrative work, the paperwork on the side of the patient has also increased. For example, patients need various certificates to get access to certain medicines and subsidies, for which they put a lot of pressure on the healthcare workers. This person suggested as an intervention to provide some administrative staff for healthcare workers, who can support them with non-medical paperwork. In this persons' opinion, this support would highly decrease the workload.

Employment Services

Development and learning opportunities were regularly discussed during the workshop among Italian nurses and physicians. In this regard, two participant addressed the need for specific trainings to train technical skill, but also more broad generic skills according to someone's needs. In addition, someone emphasized the importance of decent onboarding procedures. When a new physician or nurse starts in a hospital it is necessary that they learn about the culture, habits, and organisation of the hospital. If this is not done properly it might be a source for conflict and dissatisfaction on the job. Furthermore, this onboarding could be very beneficial to physicians or nurses that move to a different geographical region or city for their work. Follow-up actions do not have to be work-related according to one person, but can also be socio-cultural such as excursions in the city or art visits. Moving to a different region for your work involves changes and adaptations at different levels that all have an impact on the work, job satisfaction and well-being.

Working Conditions

One participant specifically acknowledged that the working conditions and the workplace culture are highly important for the well-being of physicians and nurses. The workplace must ensure working good conditions, as you spend about one third of your time there. Also, when the working conditions are not adequate, not only the employee will suffer, but also the patients. To make the workplace a healthy place, one person suggested to provide *"Gyms, canteens, where you can have a healthy meal and informal talk with your colleagues; but also the provision of anonymous psychological support for employees, where you can express any problems you may have at the workplace without having repercussions from managers or those in charge, and also rewards for the employees themselves since at the moment they do not feel rewarded or valued, and are no longer motivated to do the best they can.".*

Work Relations

Work relations, positive feedback and constructive teamwork are beneficial for someone to stay in their workplace. Three interventions directly concerned actions to improve teamwork. Two participants suggested to organise monthly interprofessional meetings to discuss problems and find solutions. During such meetings, it is equally important to address positive aspects of the team, and hence, to not remain stuck in problems. This will also increase the 'team' – feeling, or in other words, will make everyone feel part of a team. In addition, one participant suggested to organise these meetings in a neutral, or non-work related context, for example a tea house or another place that is more relaxing than a meeting room at the hospital.

Among participants, there was consensus that collaborations and teamwork one of the core components of people leaving their job in healthcare. If you do not get along well with your colleagues, or more in general, with the whole multidisciplinary team, your chances to leave will drastically increase. one person explained: *"I believe that working and having a good group of colleagues can clearly increase the desire to keep that job and not change it. […] In fact, I would like to emphasise that this is especially important between the different professions in a hospital, which is very often lacking because there is no communication between physician and nurse, between administration and health care, and so on.".*

Besides teamwork and collaborations, someone mentioned in particular the need for appreciation for their work to ensure motivation and job satisfaction. In this person's opinion, several directors and managers lack the skill to show appreciation for their team's work. Another participants added that receiving a small appreciation or reward for your work once in a while would also increase staff satisfaction.

Organizational Culture

The overall work culture is also important for someone's job satisfaction and intention to stay in the job. One participant talked about the importance of being treated as a human, instead of a number. This person said: *"The worker is not an abstract person who is only there to work, he is always a person.".* Another person added that, currently, many physicians do not feel that supervisors or managers are listening to their needs. Usually when they give ideas or provide feedback, the managers respond with 'Yes, we'll see later, now the time is very difficult,

after this period, we will take it into account', and then months pass and nothing happens. This dynamic is very toxic, as it kills motivation and reduces job satisfaction.

Strengths and Limitations

An important strength of this study is that we were able to conduct an explorative analysis about the most important determinants of job retention; and that we organised highly interactive and dynamic workshops in four European countries to brainstorm on interventions to improve job retention. Additionally, a second strength was the use of co-creation or human centred design thinking as this allows full input of the stakeholders. Also, the use of the Miro board allowed interaction and was therefore considered a strength. Nevertheless, we should also note several limitations to this study and how the researchers addressed them. First, with regard to the sample size, the researchers tried to achieve groups with between six and fifteen participants. However, due to difficulties in recruitment and retention, the majority of the workshops had an attendance rate below six. Nonetheless, researchers were able to collect interesting input. Second, there was an unequal distribution of participants (i.e. sex and profession) among the four participating countries. For example, the sample size was especially low in the Netherlands and Poland and all workshops were dominantly represented by nurses and females, which limited heterogeneity of the target group. Third, respondents participated voluntary in the study, implying the possibility of selection bias. It is plausible that those who entered the study share some characteristics that distinguished them from non-participants (e.g. currently unsatisfied with their job and considering leaving).

Discussion, Conclusion and Next Steps

The results show that nurses and physicians reported similar determinants for job retention and job satisfaction as in the systematic review conducted by De Vries et al. (2023). The main added value of this study is that it provides preliminary evidence on what physicians and nurses prioritise most when they reflect and discuss on job retention. Our data suggest that nurses and physicians are in all four countries highly engaged in their patient-work, but are drained by non-patient paperwork, an unhealthy work-life balance, a lack of teamwork, limited development opportunities and no appreciation from their supervisors.

The scope of topics discussed during the workshops varied across countries. In particular, commuting issues emerged as a concern solely among Belgian participants, whereas cultural disparities were exclusively raised in the Polish workshop. The promotion of overall health was predominantly suggested in the Italian session. While these differences may reflect cultural, societal, or geographical variations, they could also be attributed to the selection of participants themselves.

Despite some differences in the topics discussed among the participants from the four countries, there was considerable convergence. Communication issues, for instance, were raised in all workshops. However, the nature of these issues varied. In Poland, young physicians reported having communication problems with nurses and patients, while in other countries, inadequate communication was mainly between healthcare workers and their supervisors. Additionally, all participants reported experiencing a high workload and a difficult work-life balance. One solution that emerged consistently across all countries was the suggestion to hire additional support, such as administrative staff and caretakers.

It is not possible to draw definitive conclusions regarding the relative importance of various factors that were not mentioned in the workshops, as such omissions may be influenced by several factors such as small sample sizes, response biases, and time constraints during the workshop. Moreover, cultural, political, and structural factors pertaining to the healthcare system may also play a crucial role in shaping differences between countries.

Interestingly, financial remuneration was not identified as a significant factor by participants across all countries. However, we should be careful interpreting this outcome as participants knew that in our project we were not looking into this type of interventions, as the focus of the workshop was more on content-related interventions.

A recurring theme among participants in all workshops was a lack of opportunities for learning and professional development. Our findings suggest that nurses and physicians prioritize their professional growth, and that constantly compensating for staff shortages or working in crisis mode is not sustainable and increases the risk of burnout and turnover intentions. Participants emphasized the importance of annual feedback conversations for both evaluating performance and setting future expectations.

Connected to creating these opportunities were the leadership skills and ability of supervisors to actually listen to their employees, detect problems and try to find solutions. This was also recognised in literature, as supervisors should be able to support healthcare workers in identifying their strengths, increasing their self-efficacy and maintaining satisfaction in the job (23). Leadership, social support, and showing appreciation are skills that should be prioritised in leaders and, if not available, trainings could contribute to improving these skills among supervisors and management.

Various recommended interventions focused on the organisation of (interprofessional) team meetings to enhance team work and work more efficiently with less conflicts. This involved all levels of the hospital and should not only focus on collaboration with direct colleagues but also the communication between healthcare workers and decision makers within the hospital.

An unhealthy work-life balance seemed a problem in all countries. This is in line with the findings from the systematic review by De Vries et al. 2023). The review found for example that employees that work part-time are less inclined to leave their job. Neeltje et al. (2023) explain this by the fact that 'nurses and physicians who work full-time instead of part-time are more exposed to working conditions that negatively impact upon job satisfaction and result in them leaving the workplace'. But also because full-time work may result in greater difficulties to maintain a healthy work-life balance, due to more working hours (23).

Based on our results, we recommend that interventions that aim to improve job retention should primarily focus on reducing non-patient related work, improving work-life balance, stimulating development opportunities, and enhancing teamwork. The next step in the project will be to analyse the results from the second workshop. During this second workshop, the participants (i.e. nurses and physicians) brainstormed and generated multiple ideas for interventions and policies focused on job retention in European hospitals. Finally, the proposed interventions from both workshops will be translated into policy recommendations on job retention.

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