

# Factors associated with nursing work climate deterioration as related to shift exchanges



*Factores de deterioro del clima laboral de enfermería asociados al enlace de turno*

*Fatores dentro da passagem de plantão associados à deterioração do clima de trabalho de enfermagem*

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## ABSTRACT

**Objective:** To uncover the factors that deteriorate the work environment during shift exchanges.

**Method:** This is a qualitative, descriptive-analytical study using the phenomenological method, based on Elton Mayo's human relations theory. The setting was a second-level hospital. A total of thirty-two participants were included. The social actors included were general nurses, specialists, and service managers. Data collection was carried out using interviews and non-participant observation techniques, conducted in September-October 2021. Data analysis was performed in three stages: *epoché*, description, and horizontalization. The chromatic technique was used for analysis.

**Results:** The main findings converge into three categories: workload, as it affects the quality of care; absenteeism, which increases handover time; and interpersonal relationships, which influence the handover process. Observations allowed for the creation of a shift exchange model represented by a flowchart and a patient reception instrument.

**Final considerations:** Workload and interpersonal relationships directly influence the work environment.

**Descriptors:** Nursing; Workload; Absenteeism; Interpersonal relationships.

## RESUMEN

**Objetivo:** Evidenciar los factores que deterioran el clima laboral durante el enlace de turno.

**Método:** Es un estudio cualitativo, tipo descriptivo-analítico, utilizando el método fenomenológico, sustentado por la teoría de las relaciones humanas de Elton Mayo. El escenario fue un hospital de segundo nivel. Fueron incluidos treinta y dos participantes. Los actores sociales fueron enfermeras generales, especialistas y jefes de servicio. La recolección de datos se realizó mediante técnica de entrevista y observación no participante, aplicadas en septiembre-octubre del 2021. El análisis de datos se realizó en tres etapas; *epoché*, descripción y horizontalización. Para el análisis se empleó la técnica cromática.

**Resultados:** Los hallazgos principales convergen en tres categorías: la carga laboral, ya que afecta la calidad de los cuidados. El ausentismo laboral, que incrementa el tiempo de enlace, y las relaciones interpersonales que influyen en la entrega-recepción. Las observaciones permitieron generar un modelo de enlace de turno representado por un flujograma e instrumento de recepción de pacientes.

**Consideraciones finales:** La carga de trabajo y las relaciones interpersonales influyen directamente en el clima laboral.

**Descriptores:** Enfermería; Carga de trabajo; Absentismo; Relaciones interpersonales.

## RESUMO

**Objetivo:** Evidenciar os fatores que deterioram o clima de trabalho durante a passagem de plantão.

**Método:** Trata-se de um estudo qualitativo, do tipo descritivo-analítico, utilizando o método fenomenológico, sustentado pela teoria das relações humanas de Elton Mayo. O cenário foi um hospital de segundo nível. Foram incluídos trinta e dois participantes. Os atores sociais foram enfermeiros gerais, especialistas e chefes de serviço. A coleta de dados foi realizada por meio de técnica de entrevista e observação não participante, aplicadas entre setembro e outubro de 2021. A análise dos dados foi realizada em três etapas: *epoché*, descrição e horizontalização. Para a análise, utilizou-se a técnica cromática.

**Resultados:** Os principais achados convergem em três categorias: a carga de trabalho, que afeta a qualidade dos cuidados; o absenteísmo, que aumenta o tempo de passagem de plantão; e as relações interpessoais, que influenciam o processo de entrega e recebimento. As observações permitiram a criação de um modelo de passagem de plantão representado por um fluxograma e um instrumento de recepção de pacientes.

**Considerações finais:** A carga de trabalho e as relações interpessoais influenciam diretamente o clima de trabalho.

**Descritores:** Enfermagem; Carga de trabalho; Absenteísmo; Relações interpessoais.

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## ■ INTRODUCTION

Shift exchanges are fundamental to ensure the continuity of care, since, in this process, patient safety is preserved and any pertinent information about their evolution is transmitted<sup>(1)</sup>. Since this is a widely disseminated process, it has been called using different terms, such as shift swap, transfer, or exchange, for example. It usually lasts from 20 to 40 minutes<sup>(2)</sup> and, during the exchange, nurses who are finishing the activities of their shifts must hand over their patients, as well as materials and supplies<sup>(3)</sup>, ensuring there are not outstanding tasks at the moment the service is handed over. The exchange process, due to its nature, is a complex phenomenon, since it involves many factors that influence its final result, which can worsen work climate<sup>(4)</sup>.

When the nursing staff does not exchange shifts properly, there can be delays in the delivery of care, diagnoses, or treatments; data on the current status of the patient may also be omitted. Therefore, an ineffective shift swap may produce adverse events, near misses, and sentinel events, having a negative impact on the health of the patient, which results in longer hospitalizations and increases the likelihood that the recovery prognosis will undergo complications<sup>(5)</sup>.

Furthermore, nursing work climate conditions have a direct impact on shift exchanges, as they can deteriorate health care processes and quality<sup>(6)</sup>. In this context, the work climate is understood as the atmosphere that exists among the members of an organization, which is closely associated to the degree of motivation of its employers, specifically referring to the motivational properties of the organizational environment<sup>(7)</sup>.

In this regard, for work shifts to take place, instruments for data collection must be updated, as well as medical records and supply lists<sup>(8)</sup>. As a result, a model shift exchange had to be created, one that could adapt to work conditions in order to reach the goals of handing over and receiving shifts, minimizing the negative effects of this activity and leading to a satisfactory work climate.

It is worth mentioning that the factors that most often influence the work environment are: workloads, poor interpersonal relationships, and reduced staff<sup>(9)</sup>. Nevertheless, other factors also have an influence, such as the lack of communication and an inadequate nurse-patient ratio<sup>(5)</sup>, in addition to inadequately made medical records. These phenomena take place in

second-to-third level hospitals that do not recognize the importance of these factors during shift exchanges, which can lead to work dissatisfaction<sup>(10)</sup>.

In this regard, interpersonal relationships must be satisfactory, and maintaining them so is a necessary part of strategies to improve the exchange process, since this factor is related to the equal treatment between workers that is established within an organization, based on the different types of communication, in such a way that a connection can be established between workers in their work environments<sup>(11)</sup>. It is worth noting that, in general, nurses keep a respectful relationship during their shifts, due to the training they receive in their professional education<sup>(12)</sup>. Nonetheless, differences between staff members can trigger a worsening of the hospital environment, and it is important to evaluate work conditions in order to optimize shift swaps.

The workload also affects exchange, and, as a consequence, the quality of care, due to the fact that the nurse-patient ratio is increased, exposing nurses to extenuating physical and mental conditions, that interfere in their ability to provide care<sup>(13)</sup>. On the other hand, absenteeism interferes with the handing over and receiving of services, since, when the staff of a specific area is incomplete, a good control cannot be achieved.

Therefore, these factors tend to have a repercussion in shift exchanges, since, if the work environment continues to be in poor condition for a long period of time, the staff becomes unable to conduct all patient safety processes. In turn, the shift exchange is not a unified activity, since each institution can conduct it as they see fit; nevertheless, a standard clinical record was implemented for these exchanges<sup>(8)</sup>. This is why it is necessary to propose an alternative that can reduce this issue through the use of an exchange shift model. In this context, the research question of this paper emerged: Which factors disrupt work climate during shift exchanges? The goal of this study was to determine which factors disrupt work climate during shift exchanges.

## ■ METHODOLOGY

This investigation has a qualitative approach, meaning it is interested in describing, analyzing, and deducing meaning in order to better understand the subjective reality of its participants<sup>(14)</sup>. It is also a descriptive-analytical type research, allowing us to specify the characteristics

of the experiences of social actors<sup>(14)</sup>. A phenomenological method was chosen as it enables describing the experiences of the nursing staff and examining their subjective interpretations about shift exchanges. To do so, the methodology chosen proposes three steps: description, *epoché*, and horizontalization<sup>(15)</sup>, which are followed since the start of the search, including the formulation of the research question, as well as data collection, description, and analysis.

Additionally, the investigation was based on the theory of human relationships by Elton Mayo. This theory was chosen considering current nursing hospital contexts and the way it considers work dynamics and climate, with a work-centered approach that considers their psychological needs, interpersonal relationships, and the staff feelings of belonging in the institution<sup>(16)</sup>. Similarly, it considers the importance of communication within organizations in order to deal with conflicts and promote a positive environment. In this regard, the theory allowed us to contrast categories and identify the work climate during the shift exchange from a managerial perspective.

Likewise, the investigations by Elton Mayo propose improving work conditions, since this has a significant impact on the productivity and wellbeing of workers<sup>(17)</sup>. Consequently, in order to contrast the data found with theory, we considered the following elements: motivation, interpersonal relationships, communication, informal organization, and group dynamics<sup>(18)</sup>.

The setting was a public, State-owned secondary health care hospital from a municipality in the State of Mexico, in the Mexican territory. The hospital has only 47 operational beds and 8 offices. Nevertheless, to serve the population in the region, the hospital has 121 nurses, distributed as follows: one head nurse, one teaching coordinator, eight supervisors, one quality assurance nurse, eight department chiefs, ten specialists, and 92 general nurses.

The investigation took place in services such as: internal medicine, surgery, child labor, gynecology, and emergencies. We divided the shifts as the morning shift (7:00 am to 3:00 pm), afternoon shift (1:00 pm to 9:00 pm), and night shift (8:00 pm to 8:00 am). There is a group of staff members hired, specifically, to cover the weekends, in what is known as the weekend shift or special shift. They are present on Saturdays from 8:00 am to 8:00 pm, and on Sundays from 8:00 am to 8:00 am.

Participants were selected according to the following inclusion criteria: having at least one year work experience in the hospital, being a general nurse, a specialist nurse, or a department chief. Exclusion criteria aimed to discard nursing students and interns, as well as those who were on vacation or sick leave.

For data collection, two instruments were chosen: one interview guide, and one observation guide. The goal is to produce a broader picture of the study object, allowing investigations to get to know the phenomenon in its natural state, as well as the experiences of social actors. Nine questions were elaborated for the interview script, with three for each theme: workload; absenteeism; and interpersonal relationships. Additionally, we used a thirteen-item observation guide to collect observations about the setting of investigation. These instruments originated from the inciting questions which, in turn, emerged from the specific objectives of this investigation.

Thus, once the project was accepted by the research ethics committee of the institution, we contacted the educative coordination and the head of nursing to formalize an activity schedule. This schedule determined in which service the observation process would start and in which order the interviews would be conducted. It allowed gaining access to the facilities and ascertaining hospital stay schedules in different shifts and services. As a result, data collection was divided into two stages. The first was carried out from the September 1 to 29, 2021, starting with the observation guide; the second, lasted from October 2 to 31, and comprised the interviews.

To develop the first stage, the investigators attempted to act as naturally as possible, so they would not be noticed in the services and shifts as they conducted non-participant observation. Each researcher had to be present in a shift exchange, meaning that they remained in each service, in the different shifts, from 15 to 30 minutes.

Additionally, in the second stage, which involved the application of the interview, we asked the educative coordination for a classroom that would allow carrying it out in an environment free from noise and distraction. Moreover, the researchers prepared the interview scripts, the informed consents, and brought voice recording devices for each interview, before proceeding with data collection.

The interviews were conducted within a month. This allowed researchers to take part in logistics, and in the communication with interviewees. Each interview lasted from 25 to 40 minutes, limiting the number of interviews that could be carried out each day.

Data saturation<sup>(14)</sup> was reached after 32 interviews, as in the last sessions the information found was extremely similar to the responses provided by the participants who had already been interviewed. As a result, no further information of interest was being added.

Once all the information was collected using these instruments and the voice recording device, researchers started the data description process, with no value judgment regarding the responses<sup>(19)</sup>. Later, interview and observation guide data was transcribed into Microsoft Word.

The pre-analysis corresponded to the transcription and organization of data, in order to organize the information found. Then, the descriptive data was explored, being defined and organized for visual coding using a chromatic technique<sup>(20)</sup>. By using a chromatic technique, the most relevant data was organized in chromes, in order to identify the most relevant findings.

The data found using the observation guide allowed highlighting factors that were a natural<sup>(19)</sup> part of the shift exchange, and thus, showed attitudes or conducts that were not detected during the interview. Finally, a qualitative discussion was carried out, according to the following steps: the category was conceptualized, empirical data was presented, contrasts between empirical data and theory were shown, and we presented our logical reasoning, using it to give support to the knowledge found during the study.

This investigation was developed in accordance with the Regulations from the General Health Law of Mexico. Participants received and signed an informed consent. The investigation was submitted and approved by a research ethics committee, receiving opinion No-2021-10-767. Each social actor was named using the letter "N", for nurse, plus an alphanumeric code, in order to ensure their anonymity.

## ■ RESULTS AND DISCUSSION

This article included 32 nurses from the units of internal medicine (n=8), surgery (n=4), child delivery (n=5), emergency (n=8), and gynecology (n=7). These workers were divided into the following work shifts:

weekends and holidays (n=6), morning (n=12), afternoon (n=8), and night (n=6).

The results of this investigation have shown which factors affect the work climate during shift exchanges, which is an essential process for the continuity of care, as is maintaining care safety.

Nevertheless, to reach this goal, different elements associated with Elton Mayo's human relationships theory were used. As a result, the results were distinguished as they emphasized the concepts of absenteeism, workload, and interpersonal relationships, which were the categories used for description.

The results found have shown that, during the shift exchange, some relevant information is omitted, showing that a more structured and emphasized approach is necessary. A detailed analysis of the semistructured interviews and observation guide data led to the design of a shift exchange model that can promote clear, complete communication. Additionally, we developed a handover-reception system that considers dimensions such as patient identification, clinical status, current treatments, future interventions, and incident reports. This instrument, together with the model proposed, seeks to ensure the continuity of care, improve communication among nursing workers, reduce the incidence of conflicts, and streamline the process of handing over and receiving a shift.

### Absenteeism

Absenteeism is the term used to indicate the absence of the worker from the company. It is a multifactorial phenomenon divided in three factors: personal, such as age, family characteristics, and quality of life; organizational, mainly related to work satisfaction; and work conditions, such as the overload of care activities and the work environment<sup>(21)</sup>. When these factors affect the care provided by the staff, they do not allow for an appropriate shift exchange, since, according to the experiences of participating nurses, the following happens:

*It interferes in regard to time, because a single person gets here and they have to receive supplies, patients, deal with pending issues, one person alone can't deal with it all, a second or third person is necessary to help when you are in the receiving end of the exchange (N-4).*

*If this person doesn't come, the one who stays in the service feels the workload and feels the pressure at the time of handing over the shift (N-3).*

*It does affect a lot, some services are not covered, some others have much less people than they should and you have to just go forward, so yes, the absence of workers, it does affect all of us (N-8).*

*If the team is incomplete, the ratio of patients per nurse gets higher, so of course absenteeism affects it (N-15).*

The perception of nurses regarding work absenteeism shows that the workload is increased when the personnel in the service is reduced, delaying shift exchanges. According to Mayo, the institution must carry out actions to improve the work climate, meaning that, when the environment is favorable for communication and interpersonal relationships, the factors that lead to absenteeism can be mitigated<sup>(16)</sup>.

As a result, we found that absenteeism in nursing workers is a complex and multi-causal phenomenon, affecting the hospital economically, since absenteeism generates costs, but also from an organizational perspective, as it makes it difficult to conduct health care procedures and carry on with the regular functioning of the services, which include shift exchanges<sup>(22,23)</sup>.

Consequently, insufficient personnel deteriorates the work climate during shift exchanges, since missing a member of one's team means that the remaining staff must hand over or receive the service as a whole on their own. This generates work overload, since excessive interventions and care activities must be carried out by the nursing staff, harming the quality of care. This shows how complex the shift exchange process is, and how necessary it is to ensure that the right number of workers are in the services with the higher demand, in order to avoid adverse events, near misses, and sentinel events that can impair patient safety.

## Workload

The workload of the nursing staff is defined as the sum of the care interventions in a certain period and the time spent on their execution<sup>(24)</sup>. When supervisors do not size the personnel according to work demand, the result is work overload, whose nature will affect the

quality of care and patient safety<sup>(25)</sup>, which will have an effect on worker health. Therefore, their impact on work overload during shift exchange is shared by the social actors in the following manner:

*If it influences workload, because we have to deal with the fact that the staff is short during the night, and of course, the activities will be limited, and this will interfere in handing over and receiving the shift (N-28).*

*Workload does affect the exchange, because you want your patient to be well, but if the person in the previous shift had too much work to do, they won't hand over a patient in the best conditions (N-1).*

*In half an hour we have to receive patients, materials, supplies, consumables, there are too many activities, since at one thirty we have to be finished and become responsible for one hundred per cent of the service (N-10).*

*So, when there's more work, our colleagues in the morning must receive them and we have to receive them as well as we can (N-14).*

*The excess of patients and workers will limit all pending activities we have (N-28).*

*Yes, the workload has an effect in the sense that, if work is excessive I get delayed, I may have to leave later, I may delay this exchange and the handing over and reception of the patient (N-30).*

According to Mayo, the workload is a factor that tends to deteriorate human relationships due to the influence it has as it changes the behavior of the workers, who tend to manifest negative attitudes when exposed to work overload for long periods of time<sup>(17)</sup>. Therefore, its influence over the work climate during shift exchanges is negative, as it reflects on activities that generate more stress in the working team. Other studies have shown that, when the nurse-patient ratio is low, nursing care may face challenges, and these conditions generate a bad setting for the shift exchange, leading to negative results<sup>(26)</sup>.



As a result, supervisors must create strategies to reduce workload, rotating the staff according to a schedule to avoid physical degradation. Likewise, in order to improve the work climate, work team integration is essential to reduce conflicts during work shifts. By assigning the adequate number of nurses to the services with a higher occupation level, the quality of care is at its best, ensuring patient safety during shift exchange.

### Interpersonal relationships

Interpersonal relationships are those established between at least two people. They are an essential part of daily life. This means that, in the entire socio-cultural space, a person lives with other individuals, which allows them to get to know others and know themselves<sup>(27)</sup>. From an institutional perspective, interpersonal relationships are understood as the capacity of a person to cooperate and work with their colleagues, choosing a goal and achieving, and organizing daily work in such a way that it does not hinder the professional performance of others<sup>(27)</sup>. In this regard, the participants indicated how interpersonal relationships affect in shift exchanges, stating that:

*If my friend in the morning shift left unresolved issues, then I know I'll do it, but the night shift colleague will demand that I do it because she's not my friend, so interpersonal relationships do matter (N-1).*

*If we all work well, in a tolerant and good way, everything flows better, so, yes, there are times in which personal conflicts emerge and we don't work as we should, but that's it, we should be tolerant and united so we can work better (N-24).*

The statements above clearly show that there are two types of relationships in the nursing staff. The first involves interpersonal relationships that take place in the shift exchange, with affective constructs of the staff being characterized by the establishment of harmonic and communicative aspects<sup>(28)</sup>. Thus, relational processes between individuals are characterized by the qualities that the work team develops to strengthen itself increasing affinity, proximity, activity, and reliability, which lead to the exchange of ideas and bonds among staff members<sup>(18)</sup>. As a result, nurses who managed to maintain appropriate relationships during shift exchange state the following:

*This is strongly based on your relationships with people, since this is the way in which you will take over or hand over a patient, so, if there is a good interpersonal relationship, the shift exchange will be faster (N-12).*

*Because if you have a good relationship with your colleagues, the dynamics during this exchange are good, but if you don't have the same enthusiasm or interest for another person, it will be a little rough round the edges, with discomfort or dissatisfaction with someone. The shift exchange activities is more boring for us, so the idea of handing the patient over well, that's because you're my friend and we have an affinity (N-17).*

*The shift exchange is really important so we can follow up the patient and their care, in addition to effective communication and empathy with all colleagues (N-25).*

According to the experiences shared, we found that the type of relationship is essential for a convenient information exchange, highlighting the importance of communication at work. As a result, positive interpersonal relationships promote friendship between collaborators, which improves the work climate in which they are developed and is favorable for productivity, leading to an optimal shift exchange, delivering a health, enriching, and quality service to the users.

Nevertheless, human behavior is also influenced by the attitudes and norms imposed within work teams, which are a result of the decisions of the staff themselves. This is due to the fact that each person has their own personality, which influences the behavior of the others with whom they have contact, who, in turn, are also influenced by others. In this regard, bad interpersonal relationships can interfere in the shift exchange process, since the conditions posed by the health team usually take precedence over the individual criteria of a professional, which was described as following:

*On occasion, people take unfinished service personally, and as a result they don't really get involved in that work, which makes it very tiresome (N-21).*

*They do it in a very personal way, so you feel like it's an aggression towards you, and this has an influence, like they're saying - I like her, I won't ask her to finish this service, I don't like her, so I will (N-16).*

*On occasion there have been problems in this regard, disagreements between long time colleagues, but this is something that people should know how to manage, treat them individually (N-5).*

Considering the above, negative interpersonal relationships have an influence on shift exchanges, since conflicts can manifest themselves personally among nurses. According to Mayo, the control exercised by group norms derives from the fact that the worker will suffer social or moral sanctions from their colleagues, so they adjust themselves to the standards of the group, which remain immutable. The individual will resist the changes to avoid being apart from the group, as happens in shift exchanges. This also suggests that informal groups also define behavior rules, rewards, or goals, as well as their value scale, beliefs, and expectations of the behavior of each of their members.

However, as mentioned above, the characteristics of nursing work activities, as well as shift exchanges, help develop a work environment full of tension, which leads to conflicts that cause physical, behavioral, and mental deterioration<sup>(28)</sup>. As with all processes, these are small links in a large chain of safety and quality, being some of the risks and shortcomings of shift exchanges<sup>(29)</sup>.

Therefore, the factors that can contribute to issues in work teams are individualism, lack of commitment and cooperation, lack of respect and team meetings. All these factors can increase workload and generate work dissatisfaction<sup>(28)</sup>. In this regard, it becomes clear that shift exchanges should be smooth, and nurses must work in collaboration to be effective<sup>(30)</sup>. Nonetheless, it has been found that the relationship among nursing workers is, sometimes, lacking in assertiveness, which can lead to an unhealthy work environment, and, therefore, to an inadequate shift exchange<sup>(27)</sup>.

Therefore, interpersonal relationships are essential to establish communication and information channels, so briefings on the state of health of the patient can be produced. Likewise, good relationships between

workers tend to improve the work climate, helping the institution by enabling the advance and implementation of strategies that help collaborative work, thus helping deal with adversities and reducing workload. As a result, interpersonal relationships must be focused on communication among the staff and training about topics related to social relationships carried out in different shifts, so work tensions are reduced and the process of handing-over and reception can be generalized, preventing personal conflicts that could deteriorate the work climate. As a result, we present below an instrument to give support to shift exchanges.

### **Shift-exchange model and instrument for the handing-over and reception of patients**

The shift-exchange model is presented in a flow-chart below (Figure 1); it starts with the verification of the service personnel. Once it is found that all the necessary staff is present, the shift take over forms are distributed, to register relevant data and ensure there are no outstanding activities. Finally, the diagram ends with the delivery of the forms to those responsible for taking over the service.

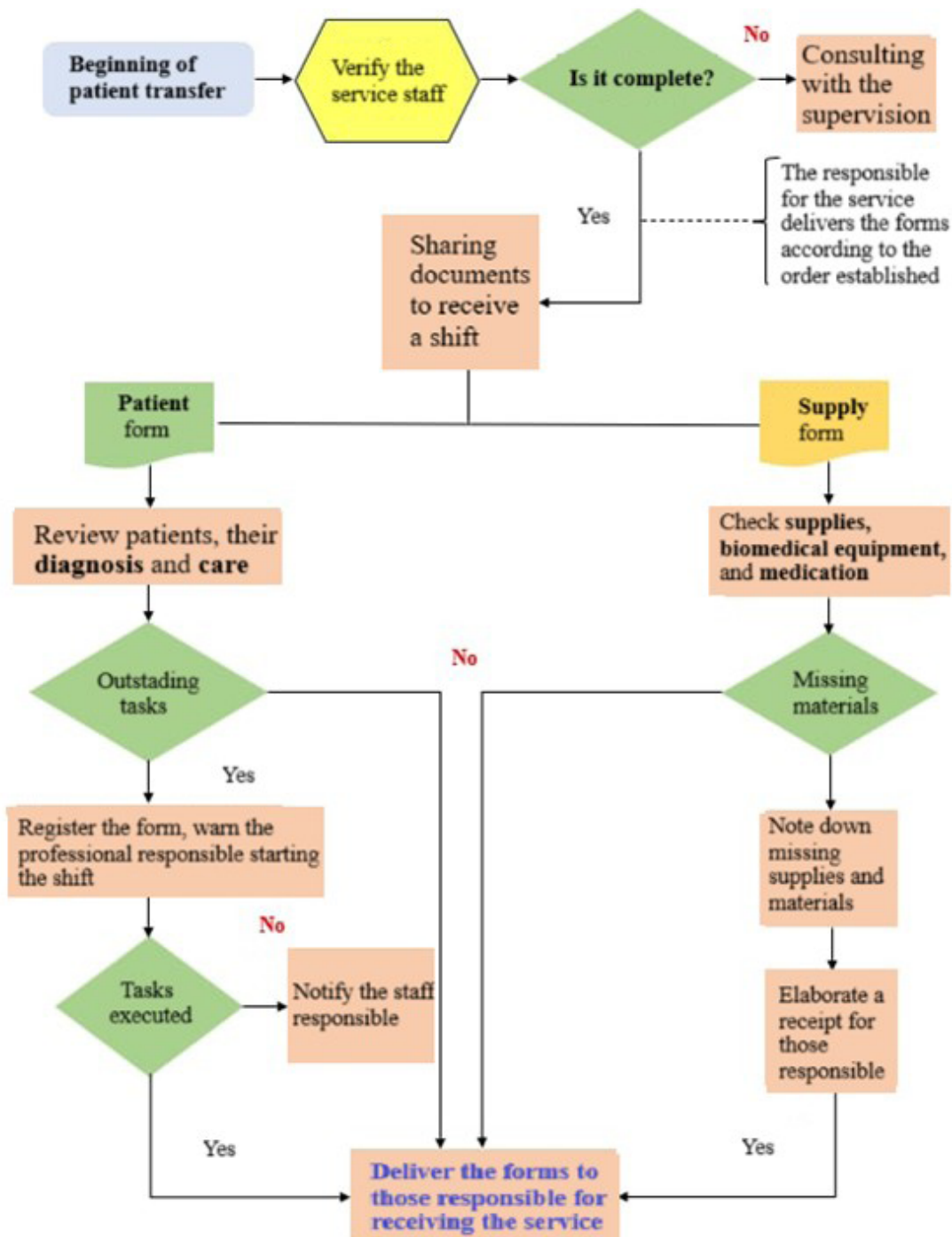
In turn, the instrument for handing over and receiving patients (Figure 2) starts with the identification, containing the following data: date, name of the person responsible for receiving the patient, service, shift, time of entry into the service, starting time, and end time. The ink used to fill in the form must be the color assigned for each shift, in addition to avoiding mistakes, such as erasures or amendments while writing.

Then, the service is identified. This space includes general data on patient distribution. First, the total number of patients in the service must be noted, as well as how many of them are under orotracheal intubation, isolated, scheduled for surgery, or are psychiatric patients. The number of unoccupied beds must also be included. If something is misplaced, the article or material that could not be found should be described in the section "misplaced item". In "observations", all aspects related to the shift exchange must be included, including the state of the patients. Finally, the professional responsible for handing over the patient during the exchange must be written down, and they must sign the document.

Later, the patients are received, and a table was designed for the correct identification of each. They must be transferred at their bedside, so their current state of health can be ascertained and their vital signs verified. The continuity of their medication must be evaluated, including a verification of the functionality of their venous accesses, based on the norms of the

institution. They must also be monitored in regard to the specific care provided during the shift.

Finally, when patient transfer is over, the form should be delivered to the department chief, so they can be aware of the process. They must write down their name and sign the form. This form has two parts, so a larger number of patients can be included.



**Figure 1** - Flowchart proposed as a model for shift exchanges. Toluca de Lerdo México, México, 2024.



Responsible for receiving the patient:		Date:
		Service:
		Shift: <b>MS AS NS SS</b>
Check-in time:	Start time:	End Time:

General information		Missing item		Observations
Total patients		Yes	No	
Patients on mechanical ventilation		Describe:		
Isolated patients				
Patients for surgery				
Psychiatric patients		Responsible for outstanding tasks:		
Beds available				

Patient information		Request for outstanding activities	
Name:	Age:	Yes	No
	Diagnosis:	Describe:	
Specific care			

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Name and signature of the department chief

**Figure 2** – Form A: patient transfer. Toluca de Lerdo México, México, 2024.

\* The subsection with patient information is repeated in the sheet according to the number of patients in service, and the last sheet is the one to be signed by the department chief.

## ■ FINAL CONSIDERATIONS

This study identified the work climate factors that involve nursing workers and have an influence on shift exchanges. We also developed a shift exchange model, as well as a patient transfer instrument, which were the products proposed by this research, in order to ensure that the patient exchange is a safe, efficient, and optimal process. The results found show that the moment when the patients are transferred is impaired by staff absenteeism and tardiness, which is made clear by an incomplete work team. This leads to a higher workload and an increased level of stress among nurses, meaning that management must intervene to remedy this issue using pertinent strategies.

Interpersonal relationships also have a relevant effect on the performance and actions of collaborators or work teams, be it for their own benefit, or for their implication over these activities.

These findings suggest that, to improve shift exchanges, optimal communication conditions must exist between nursing workers. That is, an appropriate time and place must be set out for the transfer, and innovative methods should be implemented that allow carrying out activities efficiently. In this regard, our findings led to the production of a flowchart and an instrument of patient transfer, proposing a model that facilitates shift exchanges. Both proposals emerged from the results of our investigation (empirical data).

Limitations of this study included the fact that we could not collect data from all hospital departments as we hoped, since, due to the pandemic, some areas were still restricted. Additionally, the research ethics committee of the hospital took longer than expected to evaluate our request, due to changes in the organization of said committee that delayed the process of data collection.

Finally, the results of this investigation highlight the need to implement a structured shift exchange model and improve communication between nursing teams. Future investigations could explore the implementation of the model proposed and identify other factors that influence shift exchanges.

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