

## Research Article

# Perception of the Disclosure of Adverse Events in a Latin American Culture: A National Survey

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## ABSTRACT

**Introduction:** Adverse events are common and are responsible for a significant burden in the healthcare setting. Such issues can vary according to the local culture and relevant policies. The current literature on the subject primarily addresses Anglo-Saxon cultures; this study focused on understanding the perception of disclosure in a middle-income country in Latin America. **Methods:** In this descriptive study conducted from June–August, 2021, an online self-administered survey about disclosure practice used a convenience sample of 995 Brazilian healthcare professionals. **Results:** Based on two different outcomes presented following a hypothetical adverse event (outcome 1: death; outcome 2: no permanent damage), 77.9% of participants fully agree that disclosure should be performed in both scenarios. Although 67.1% claimed that disclosure changes the perception of the institution by those involved, only 8.3% fully agree that there would be a reduction in trust regarding the institution. Despite only 11.5% of participants fully agreeing that disclosure increases the chance of legal action against professionals and institutions, 92.7% fully or partially agree that judicialization was possible in scenario 1, and 72.4% agree it was possible in scenario 2. Of the participants, 64.2% claimed they already faced a “disclosure” situation, and 44.3% fully believe that the person directly involved in the adverse event should participate in the disclosure. **Conclusion:** In this sample of professionals from a middle-income country in Latin America, the practice of disclosure was considered ethical, and the majority of respondents affirmed that it should always be performed. Nonetheless, this call for transparency collides with participants’ perception of a higher risk of legal action when disclosure is performed after a negative outcome situation.

**Keywords:** disclosure, adverse events, legalization

## INTRODUCTION

Adverse events are common and responsible for a significant burden in the healthcare setting,<sup>[1]</sup> but there is a lack of urgency regarding research on the subject.<sup>[2]</sup> One of the major topics in an adverse event is the practice of disclosure. Although considered an ethical

act, this practice is surrounded by fears and doubts.<sup>[3]</sup> In the United States, approximately 1,000,000 medical errors occur annually, resulting in an estimated 98,000 deaths.<sup>[4]</sup>

Disclosure after the occurrence of an adverse event is considered an ethical act, but it is a process surrounded by fear and doubt.<sup>[3]</sup> Such issues can be enhanced or

minimized depending on the local culture, the professionals involved,<sup>[5,6]</sup> the characteristics of the local population, and the relevant policies.

Although the concept of disclosure is based on an ethical discussion, many professionals feel uncomfortable with such issues because they fear possible legal action and have doubts regarding disclosure processes.<sup>[1]</sup> Some countries, such as the United States, Canada, Australia, and the United Kingdom, have established initiatives to make disclosure a practice regulated through legislation.<sup>[1,3]</sup>

Nevertheless, research has shown that only approximately 30% of adverse events are disclosed to patients and family members<sup>[3,7-12]</sup> and that there is a perception that events involving less-severe effects do not need to be reported to patients or families.<sup>[13]</sup>

Hayajneh et al<sup>[14]</sup> reported that in Jordan approximately 28% of admitted patients experienced adverse events. Despite these data, there is no perception of urgency regarding the subject, as demonstrated by Blendon et al<sup>[2]</sup> in a national survey of 831 physicians and 1207 members of the general population.

Although the reported incidence of adverse events in Brazilian hospitals is similar to that found in international studies, the number of preventable events may be higher,<sup>[15]</sup> with healthcare-related judicial proceedings increasing 130% between 2008 and 2017.<sup>[16]</sup> Even in this scenario, data point to a lack of protocols in place in Ibero-American countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Portugal, and Spain) regarding how to act after an adverse event.<sup>[17]</sup>

Because the current literature on the subject primarily addresses Anglo-Saxon cultures and because the subject is the source of much debate, our main goal in this research is to understand, describe, and discuss the perception of disclosure in a population of health professionals from a middle-income country in Latin America.

## METHODS

This study was approved by the Rede D'or ethics committee (under protocol CAAE 48195121.8.0000.0087), which approved an electronic informed consent form for participants.

### Study Design

The data were collected using a self-administered online survey that was developed in RedCap.<sup>[18]</sup> The questionnaire was constructed by the authors using the same tool.

A convenience sample of Brazilian clinicians was invited to participate in the study. The survey was advertised and sent electronically through social media network lists and personal contacts. The survey was available from June–August 2021, and no incentives were provided to participants for answers.

All participants who accessed the survey, agreed to the electronic informed consent form and answered at least

one question were included in the study. It was not required that participants respond to all questions in the survey, and missing data were handled by exclusion from the analysis. Each person was allowed to respond to the questionnaire only once because data connected with repeated registrations were deleted.

### Survey

The survey comprised questions referring to demographics, work-related conditions, and exposure to disclosure, quality, and safety concepts. The survey asked nine Likert scale questions (from completely disagree to completely agree) about perceptions and attitudes toward the practice of disclosing adverse events. The survey also included a case vignette regarding the decision to disclose a possible adverse event in two different outcomes, as described below. The questionnaire is available in the supplementary material (available online).

### Case Description

The vignette described a patient admitted to the emergency department of a private hospital with a chief complaint of severe flank pain. There was a history of allergy to nonsteroidal anti-inflammatory drugs (NSAIDs). For logistic reasons, there was a failure to identify this allergy, and the patient received ketoprofen (NSAID). In one of the described outcomes, the patient developed severe anaphylaxis and eventually died. In the other described outcome, the patient developed mild symptoms, was observed for a couple of hours, and eventually was discharged uneventfully.

Respondents were asked to indicate if there should be a disclosure process for either or both of the described outcomes. Respondents were also asked if, in their opinion, there would be a change of attitude or a risk for judicial process after disclosure in each of the described outcomes.

### Statistical Analyses

This was a descriptive study using a convenience sample, so there was no sample size calculation. Microsoft Excel 365TM (Microsoft, USA) and Statistical Package for Social Sciences (SPSS), version 21.0 (SPSS Inc., USA) were used as database and statistical software, respectively.

Continuous variables were described as mean  $\pm$  standard deviation or median (interquartile range), and categorical variables were described as numbers (percentage). Paired categorical variables were compared with the McNemar test. A two-tailed *p*-value of 0.05 was considered to be significant.

## RESULTS

Demographic data are presented in Table 1 and Figure 1. From a total of 1336 questionnaires initiated, 1324 respondents provided consent, of which 995 checked at

**Table 1.** Demographic data of survey participants

Characteristic	n (%)
Sex	
Female	694 (70.0)
Male	297 (30.0)
Age (years)	
< 30	65 (6.5)
30–39	386 (38.9)
40–50	279 (28.1)
>50	265 (26.5)
Education level	
Equal and less of high school	15 (1.6)
College or professional degree	737 (74.1)
Master's degree, doctor, or above	242 (24.3)
Brazilian regions	
North	1 (0.1)
Northeast	114 (11.4)
Central West	32 (3.2)
Southeast	784 (78.8)
South	64 (6.4)

least one answer and therefore were considered valid for this analysis. The category with missing data greater than 3% was that of percentage of workload dealing directly with patients (4.9%).

Most respondents were female (69.9%) and were between 30 and 50 years old (66.8%). The survey included participants from 19 of the 27 Brazilian states or districts, with the largest share coming from the southeast region of Brazil (78.8%), as shown in Table 1 and in the supplementary material (available online). Almost all respondents (98.4%) had graduated from college, and 24.3% had a master's or doctorate degree.

Hospital experience and performance characteristics of the survey participants are presented in Table 2. Most professionals worked for more than 6 years in hospital services (77%), and 40.8% of them had a patient safety specialization job in a hospital. The working profile of the participants was primarily focused on bedside care, with 45% of participants spending more than 75% of their workload dealing directly with patients. The institutions were private for 74.5% of participants and had more than 100 beds in 64.2%. The respondents were mostly doctors (53.3%) and nurses (32.2%), and the most common field was intensive care (35.9%).

As shown in Figure 1, in our sample 64.2% of respondents claimed that they had already faced a “disclosure situation.” This rate was 72.5% among physicians, 61.2% among nurses, 32% among physical therapists, and 39.9% among other professionals. Considering medical specialties, 77.8% of surgeons had already participated in a disclosure situation. This participation was similar (76.4%) among intensive care physicians but dropped to 55.8% for physicians without specialization.

Data regarding disclosure and legal considerations are summarized in Figure 2. Of the participants, 44.3% fully believe that the person who was directly involved in the adverse event should participate in the disclosure act,

whereas for 53.4% the communication should be done institutionally, through previously designated people.

Only 47% of participants stated that there is a formal disclosure policy at their institution, although 80.1% support, fully or partially, that an institutional policy would increase the performance of disclosure, and 98.2% believed that such practice would facilitate communication.

Data regarding professionals' perception and attitudes about hospital disclosure policies are summarized in Figure 3. In our data, 56.2% of those interviewed fully agreed with the concept that every event should be communicated to patients and family members, although after the different adverse event situations were presented (scenario 1: death; scenario 2: hospital discharge without permanent damage), 77.9% fully agreed with the statement that disclosure should be performed in both scenarios. Of those interviewed, 61.4% fully or partially disagreed with the statement “exclusively moderate and serious events should be communicated,” and 89.1% also disagreed that disclosure should be performed only if the event were questioned by the patient or family.

Despite 67.1% claiming that disclosure changes perception of the hospital for those involved, only 8.3% fully agreed that there would be a reduction in the trust regarding the institution.

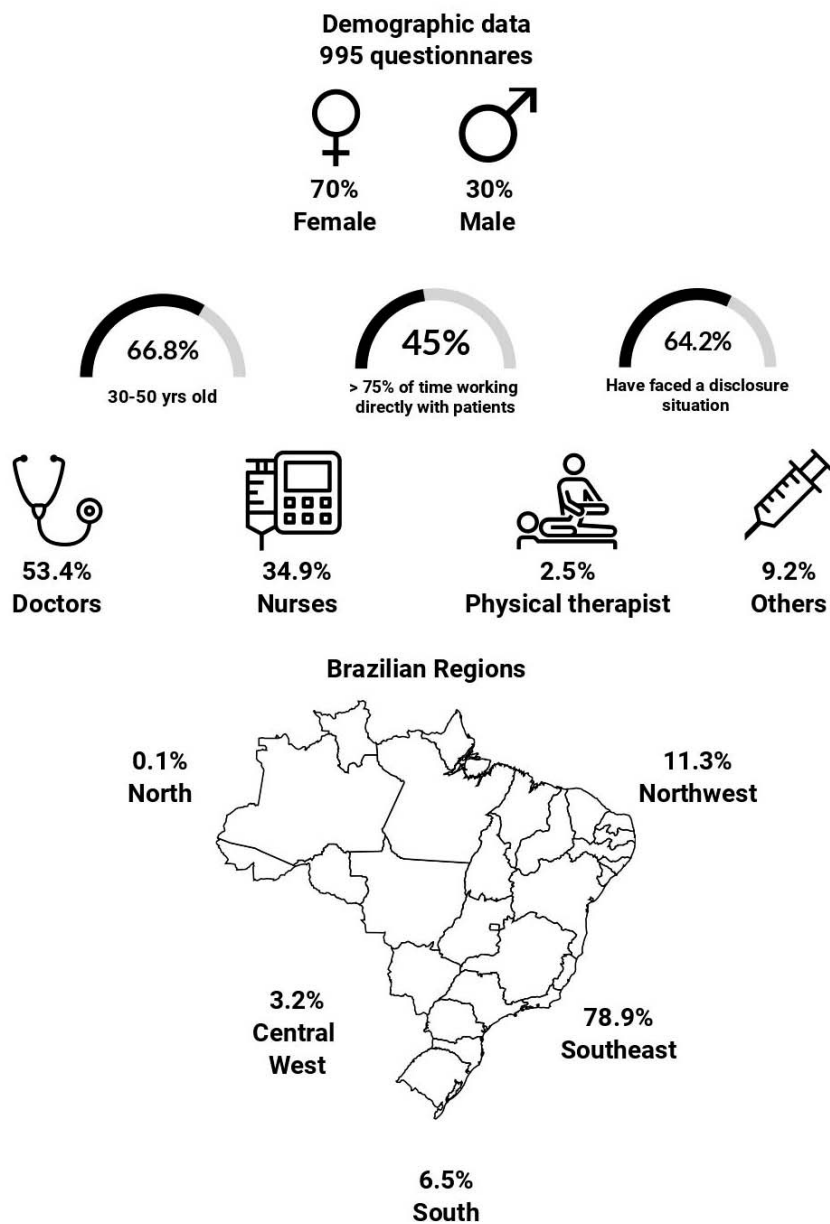
Regarding the judicialization of an adverse event, only 11.5% of the participants fully agree that disclosure increases the chance of legal proceedings against professionals or institutions. Nonetheless, after examples of an event was presented, 92.7% of respondents partially or fully agreed that judicialization was possible in scenario 1, but only 72.4% had the same response in scenario 2 (OR, 95%; CI = 27.7 [13.1–58.7];  $p < 0.001$ ).

It is noteworthy that 55.6% of people changed their opinion when exposed to these different scenarios, and the rate of those who fully agreed that disclosure should be performed in both cases fell from 81.4% for professionals who worked in any quality or safety specialization to 75.4% in the subgroup without specialization in these areas. Moreover, 36.3% believed that the act of disclosure could be used in court to increase the severity of the penalty imposed (Fig. 2).

## DISCUSSION

The main goal of this research was to understand, describe, and discuss the perception of disclosure in this specific population. In this survey, we found that most respondents had some experience with the disclosure process, and most claimed that all adverse events should be disclosed, believing that disclosure would not change the litigation risk. Nevertheless, when presented with different case scenarios, there was a perception of a higher risk of litigation with the disclosure process in the worst outcome situation, reflecting a change of attitude conditional on the outcome presented.

## Results



**Figure 1.** Demographic data of survey participants.

In this study, we explored the perception of health professionals from a middle-income country in Latin America regarding the disclosure of adverse events because there is a lack of information on the subject in the literature. Brazil is the largest and most populated country in Latin America; therefore, understanding this subject in Brazil may give information about the extent of this problem in the whole region. Brazil has approximately 213 million inhabitants, with an average monthly income of US \$528. The illiteracy rate is 6.6%, and the most common religion is Catholicism (58%).<sup>[19]</sup> Access to healthcare occurs through the public Unified Health System (Sistema Único de Saúde-SUS) or private providers, whether through private pay or associated

with health insurance companies; the latter accounts for the coverage of approximately 59.7 million Brazilians (28%).

There is a consensus among most Western countries that the disclosure of an error in care to patients is an ethical act that should be performed<sup>[7]</sup>; however, although errors in care occur frequently, only a low percentage of them are actually disclosed.<sup>[7,9]</sup>

The disclosure of an error leads to issues of fallibility, inadequacy, and guilt;<sup>[20]</sup> for institutions, disclosure can compromise trust and generate fear of legal action.<sup>[21,22]</sup> However, data indicate that patients' confidence in the system increases when they feel that information is not being withheld.<sup>[12,23]</sup>

**Table 2.** Hospital performance characteristics of survey participants

Characteristic	n (%)
Working experience at health institutions (in years)	
< 1	44 (4.4)
1–3	65 (6.5)
3–6	121 (12.1)
>6	757 (77)
Weekly time involved in healthcare	
25%	196 (20.4)
25–50%	145 (15)
50–75%	189 (19.6)
>75%	434 (45)
Current work institution	
Private	735 (74.5)
Public	189 (19.2)
Philanthropic	62 (6.3)
Number of hospital beds	
<50	170 (17.5)
50–99	177 (18.2)
100–199	215 (22.1)
>200	409 (42.2)
Patient safety specialization	
Yes	406 (40.8)
No	588 (59.2)
Clinical background	
Nurse	320 (32.2)
Physician	530 (53.3)
Physical therapist	25 (2.5)
Speech therapist	7 (0.7)
Licensed practical nurse	27 (2.7)
Others	84 (8.6)
Hospital performance area	
Outpatient department	98 (9.9)
Operative room	73 (7.3)
Emergency department	92 (9.3)
Radiology	14 (1.4)
Laboratory	9 (0.9)
Intensive care unit	358 (36)
Inpatient service	122 (12.3)
Quality and safety department	180 (18.1)
Others	47 (4.8)

Studies indicate that there is a lower risk of legal action if a disclosure is provided soon after an event, followed by an apology, with information on the next steps for care and a compensation plan for additional costs.<sup>[21,24,25]</sup> In contrast, there is a greater tendency for legal action if patients perceive dishonesty and a delay in disclosure.<sup>[26]</sup>

In this context, disclosure policies facilitate transparency in the notification of an adverse event, allowing the entire system to learn from errors,<sup>[25,27–29]</sup> a process that the aviation industry exemplifies and that should be implemented in the health industry.<sup>[28,30]</sup>

Regarding the aforementioned points, our study revealed some contradictions in a Latin American culture. Our data indicate that 90.3% agreed with the concept that every event should be communicated to patients and family members; these data are consistent with those reported by Mazor et al<sup>[31]</sup> (98% of people demand transparency) and by Ushie et al<sup>[32]</sup> (89%

demand transparency). Our results indicated that 67.1% of the respondents believed that disclosure would lead to a change in the attitude and perception of the patient or family regarding the institution. It is possible, however, that the direction of this change could move toward an improvement in the relationship between the patient or family and the institution because 69% disagreed that there could be a reduction in confidence in this context, reinforcing data previously mentioned.<sup>[12,23]</sup>

Transparency was a striking feature of our sample; 61.4% disagreed partially or fully with the statement “only moderate/severe events should be reported,” and 89.1% disagreed with the sentence “only events that are questioned by the patient or family should be discussed with them” (Fig. 2). It should be highlighted that the disclosure of every single event, even risk circumstances, is a controversial matter: some may argue that it could trivialize the discussion, impair the family’s and patient’s trust in the institution, and burden the health professionals involved in the patient’s care.

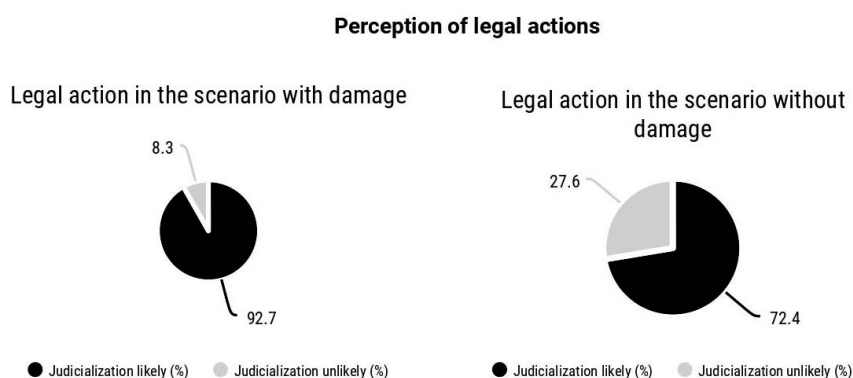
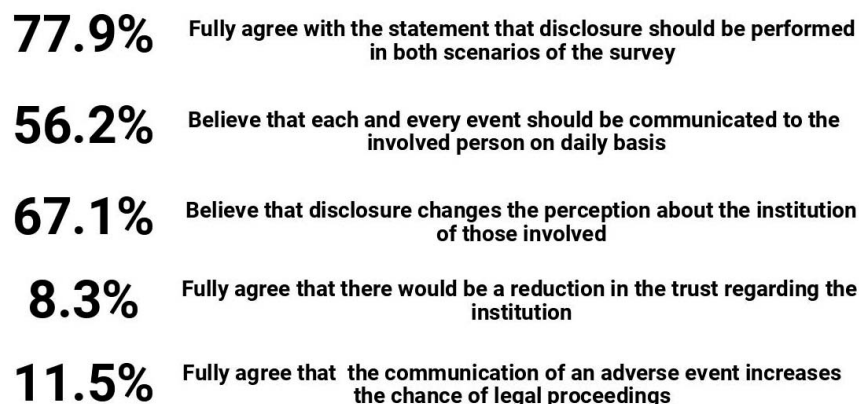
Regarding contradictions, despite the perception that disclosure should be performed, Ghalandarpoorattar et al<sup>[33]</sup> revealed that only 16.7% of surgeons admitted their latest error to their patients, and Loren et al<sup>[34]</sup> found that 53% of pediatricians admitted that they had made a mistake to patients and/or family members.

There are several standardized guidelines regarding disclosure processes, but the influence of culture and training must be taken into consideration, as demonstrated by Gallaher et al.<sup>[35]</sup> The questionnaire assessing the format of disclosure found that of the 2637 physicians who responded, 56% chose phrases that mentioned the event but not the error; 63% would not provide information on how future errors would be avoided; and when comparing specialties, the results of the questionnaire found that 58% of the clinicians would disclose an error, whereas only 19% of surgeons said they would do the same ( $p < 0.001$ ).<sup>[35]</sup>

Mansour et al<sup>[1]</sup> demonstrated that knowledge in the field and training, even if minimal (e.g., through a daylong training workshop), have meaningful effects on changing attitudes regarding disclosing errors (61.8% vs. 36.4%,  $p = 0.024$ ). In our data, 81.4% of professionals who had any specialization in quality and safety said they fully agreed that disclosure should be performed in both cases, whereas the same answer in the subgroup without specialization was 75.4% (Fig. 2).

Regarding professions, there was a similarity between nurses (78.3%) and doctors (78.1%) regarding those who claimed that disclosure should be performed in both scenarios. Nevertheless, when asked if they had any involvement in a disclosure situation, 72.5% of doctors said yes, but this rate dropped to 61.2% for nurses. When analyzing responses from medical specialists, there was a similar rate for surgeons (76.9%), intensivists (76.4%), and internal medicine physicians (74%) for those who had been in a disclosure situation, but this rate fell to

## Results



**Figure 2.** Data regarding disclosure and legal considerations for an adverse event resulting from a hypothetical case.

55.8% for nonspecialists (Fig. 2). There is a lack of data regarding professions and speciality differences in a disclosure situation, so it was not possible to make any comparisons or to assume any generalization.

On the topic of judicialization, approximately 92.7% agreed that legal action was appropriate in a case resulting in the death of a patient, a percentage that decreased to 72.7% when the outcome required medical intervention but was not classified as severe. These results are consistent with the findings by Mansour et al,<sup>[1]</sup> that is, 87% of physicians were more likely to be transparent when events of greater severity occurred. Notably, when legal action was an option, without “visualization” of the case in question, only 11.5% of the respondents fully agreed that disclosure increased the possibility of prosecution (Fig. 3).

It is interesting to note that using scenarios to illustrate an event can change the perception of what the legal result of the disclosure would be. In our data, 55.6% of the participants changed their opinions regarding legal action from scenario 1 to scenario 2, being more in favor of legal action when the outcome was worse (Fig. 2).

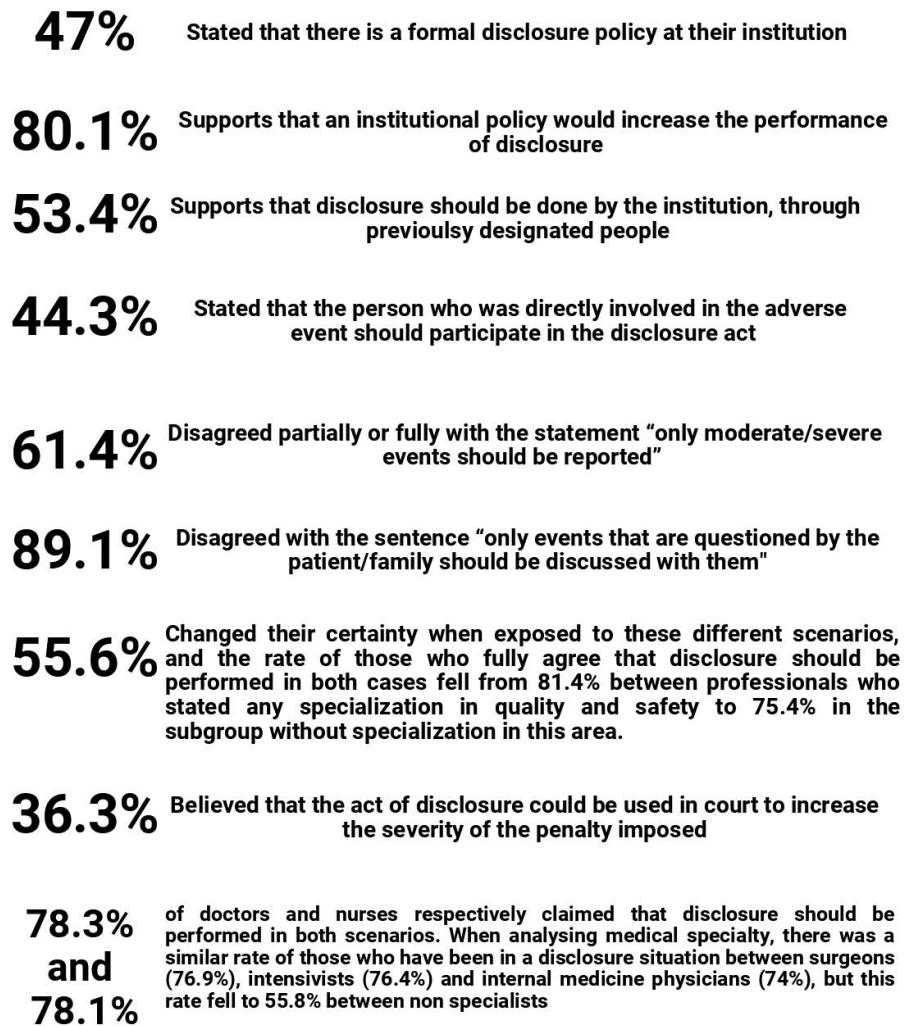
Heidari et al,<sup>[36]</sup> in a national survey in Iran with 1062 participants and with a methodology similar to that used in our study, showed that in the general population, severity and cost of treatment were the main determi-

nants of legal action and that the main determinants for not taking legal action were an apology, compensation for the error, and treatment of its complications.

Legal action deserves greater emphasis in this discussion because fear of litigation may account for the fact that only approximately 30% of events are disclosed.<sup>[2]</sup> One initiative with good results, that is, a reduction in the cost of legal action and the time to solve cases, is the D, A, and O (disclosure, apology, and offer) program, dubbed *The Michigan Model*. This program was developed at the University of Michigan and implemented in 2001,<sup>[37–40]</sup> to support their goal of becoming the safest hospital in the United States. The program, designed to maximize patient safety and decrease costs, is nationally recognized<sup>[41]</sup> and supported by the Agency for Health Care Quality and Research (AHCQR) and the Joint Commission on Accreditation of Health Care Organizations.<sup>[42]</sup> This initiative reduced the monthly legal actions from 2.13 to 0.75 per 100,000 patients (relative risk [RR], 0.35; 95% CI, 0.28–0.58), the average time of resolution of cases from 1.36 to 0.95 years, and the monthly cost (RR, 0.41; 95% CI, 0.26–0.66), with anecdotal data on patient retention.<sup>[40]</sup>

However, even with a successful North American experience, a survey of experts in the subject in Massachusetts indicated that several barriers were still

## Results



**Figure 3.** Data regarding healthcare professionals' perception of hospital disclosure policies.

present, such as local legal aspects, a lack of training, and a lack of coordination.<sup>[42]</sup>

In support of programs such as that initiated by the University of Michigan are U.S. data that indicate an average time between legal action and case resolution is approximately 5 years.<sup>[43]</sup> Also to be considered is the emotional exhaustion experienced by the parties involved,<sup>[44–46]</sup> the inability of the legal system to differentiate an individual error from a system failure,<sup>[47]</sup> and the fact that one of the motivators for patients or relatives seeking legal action is the institution's degree of commitment to ensure that the error is not repeated.<sup>[48,49]</sup>

Regarding disclosure processes, 53.4% of the respondents fully agreed that such processes should be conducted within institutions by people trained and assigned to the function. Most respondents (80.1%) agreed that an institutional policy would increase the chance of disclosure (Fig. 2), and 98.2% believed that

such a practice would facilitate communication. Such data are consistent with the University of Michigan's recommendations to discourage untrained individuals from initiating disclosure because it may be biased, be based on partial information, and involve emotional bias.<sup>[39]</sup>

This institutional approach is also considered to be good practice according to most guidelines on the subject and to be a reasonable method of disclosure when an error is reported by a professional not involved in the event, as established by Gallagher et al.<sup>[50]</sup> Despite the recommendation that disclosure be an institutional initiative, our data show that 44.3% of the participants fully agreed that the people involved in the event should participate in the disclosure (Fig. 2). This is another controversial topic because the participation of the professional in the disclosure could lead to a personification of an error, as well as result in a psychological burden for the professional involved.

In Brazil, there are recommendations from the Brazilian Institute of Patient Safety (IBSP) regarding disclosure processes, which are aligned with the Communication and Optimal Resolution (CANDOR) toolkit of the AHCQR. Among the recommendations are that disclosure should occur within the first 24 hours, that it occur with advice by a designated group regarding the need for disclosure, that it follow established guidelines, and that there be an analysis of the case using appropriate tools, such as the London protocol.<sup>[51,52]</sup> The disclosure should take an empathetic and transparent approach and include an apology and a clinical plan to deal with the possible damage caused. There should be documentation in medical records. An important point in this discussion is the support that should be given to the collaborator involved in the event, the so-called third victim.<sup>[53,54]</sup> Despite those recommendations, Mira et al<sup>[17]</sup> demonstrated that in public and private hospitals in Ibero-American countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Portugal, and Spain) there is a lack of protocols for how to act after an adverse event.

To our knowledge this is the first research to analyze the culture of disclosure in Latin America. It is also one of the few papers on the subject to address the change in how people link disclosure and judicialization viewed from a theoretical perspective to a practical scenario, emphasizing the impact of the outcome on legalization. Our study has several limitations. Although we surveyed a large sample encompassing most Brazilian states, this was a convenience sample, and as such, it may not be representative of the healthcare professionals in Brazil. This concern is further supported by the likely overrepresentation of professionals with experience in quality and patient safety, which may have biased our results. Additionally, Brazil has a unique health system and population characteristics, so even though our results add to the literature on the subject, the data may not be readily transposed to other middle-income countries. Moreover, because we measured attitudes through hypothetical scenarios and questions, it is possible that actual behaviors of the respondents might differ from that depicted in this survey.

## CONCLUSION

In a sample of health professionals from a middle-income country in Latin America, we found a consensus in the belief that disclosure of adverse events is ethical. There is also consensus that transparency is needed when an institution communicates about adverse events and that there could be increased trust in an institution when disclosure processes are implemented. Nevertheless, the perception of the risk of legal action that has a negative outcome may increase substantially when confronted with a serious case.

Moreover, based on our sample, there is a perception that disclosure should be an institutional practice led by people trained to perform it, and there is no consensus

regarding the participation of the people involved in the event.

Based on our results, we suggest that Latin American health institutions reinforce the discussion and educational programs regarding disclosure and its practical consequences for patients, family, and healthcare providers. We hope that the data included here may help guide the development of institutional policies regarding the subject.

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