**ANALYSIS OF THE COMPLETENESS OF THE NOTIFICATIONS OF VIOLENCE
PERPETRATED AGAINST CHILDREN**
**ANÁLISE DA COMPLETITUDE DAS NOTIFICAÇÕES DE VIOLÊNCIA PERPETRADAS CONTRA
CRIANÇAS**
**ANÁLISIS DE LA COMPLETITUD DE LAS NOTIFICACIONES DE VIOLENCIA PERPETRADAS CONTRA
NIÑOS**

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ABSTRACT

Objective: to analyze the completeness of the records of violence against children. **Method:** quantitative study with 4,252 children who were victims of violence as reported in the violence and accident surveillance system. Completeness was measured by means of 27 variables present in the notification form, considering the following parameters: 'Excellent' > 95% of completeness; 'Good' 95-90%; 'Regular' 90-80%; 'Bad' 80-50%; and 'Very Bad' < 50%. **Results:** the notifications in the period from 2009 to 2012 increased by 212.6%. Of the 27 analyzed variables, 12 had 'Bad' completeness, and two had 'Very Bad' completeness. **Conclusion:** the poor completeness of violence notification forms increases the possibility of bias and hampers the service of surveillance and protection of children. **Descriptors:** Child Abuse; Health Information Systems; Epidemiology; Database.

RESUMO

Objetivo: analisar a completitude dos registros de violência notificada contra crianças. **Método:** estudo quantitativo, transversal, com 4.252 crianças vítimas de violência notificadas no sistema de vigilância de violências e acidentes. A completitude foi mensurada por meio de 27 variáveis presentes na ficha de notificação, considerando os seguintes parâmetros: 'Excelente' > 95% de preenchimento; 'Bom' de 95-90%; 'Regular' de 90-80%; 'Ruim' de 80-50%; e 'Muito Ruim' < 50%. **Resultados:** a notificação no período de 2009 a 2012 tem se mantido crescente, verificando um incremento de 212,6%. Das 27 variáveis analisadas, 12 tiveram completitude 'Ruim' e duas completitudes 'Muito Ruim'. **Conclusão:** a baixa completitude da ficha de notificação de violência aumenta a possibilidade de vieses, além de comprometer o serviço de vigilância e proteção dessas crianças. **Descritores:** Maus-Tratos Infantis; Sistema de Informação em Saúde; Epidemiologia; Base De Dados.

RESUMEN

Objetivo: analizar la completitud de los registros de violencia notificada contra niños. **Método:** estudio cuantitativo, transversal, con 4.252 niños víctimas de violencia notificadas en el sistema de vigilancia de violencias y accidentes. La completitud fue medida por medio de 27 variables presentes en la ficha de notificación, considerando los siguientes parámetros: 'Excelente' > 95% de completo; 'Bueno' de 95-90%; 'Regular' de 90-80%; 'Malo' de 80-50%; y 'Muy Malo' < 50%. **Resultados:** la notificación en el período de 2009 a 2012 se ha mantenido creciente, verificando un incremento de 212,6%. De las 27 variables analizadas, 12 tuvieron completitud 'Mala' y dos tuvieron completitud 'Muy Mala'. **Conclusión:** la baja completitud de la ficha de notificación de violencia aumenta la posibilidad de vieses, además de comprometer el servicio de vigilancia y protección de esos niños. **Descriptores:** Maltrato a los Niños; Sistemas de Información en Salud; Epidemiología; Base de Datos.

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INTRODUCTION

Violence against children compromises their physical, emotional and intellectual development, bringing immeasurable consequences throughout their life.¹ In order to confront the problem, the United Nations Children's Fund - UNICEF since 1950 sought to raise awareness on the various forms of violence that occur in childhood in different countries.² In Brazil, the Statute of the Child and Adolescent (ECA) was created through the enactment of Law nº 8.069/1990, which established a structure of protection and defense, making it mandatory the notification of suspected or confirmed cases of violence against children and adolescents to the Guardianship Council.³

Considering the notification of violence as a tool for guaranteeing rights and social protection,⁴ the Ministry of Health (MOH) made it mandatory to complete the Individual Notice/Investigation Report on Domestic Violence, Sexual and/or other Forms of Violence (INR)⁵. The INR is standardized throughout the national territory and its completion can and should be performed in any health institution. The filling of the report must be done in three copies, one of which must be sent to the epidemiological surveillance service of the Municipal Health Department, according to the established flow.⁴ The INR is the main source of information of the Violence and Accident Surveillance System (VIVA). Implemented from 2006 onwards, VIVA started to be part of the violence module in the National Disease Notification System (Sinan) in the second half of 2008.⁵

The Brazilian Health Information System (HIS) contemplates several health problems and has had great visibility in recent years, especially in the academic environment. In view of this, there is concern regarding the quality of the information collected in these systems.⁶ The production and dissemination of this data is acknowledged as important, mainly because its backing role in the decision-making process of health managers, assisting in the planning of programs and policies, as well as in the execution of actions according to each context.⁷

With respect to the quality of the databases, the evaluation involves multidimensional criteria. Some criteria that have been prioritized are the completeness, reliability, validity and coverage. Completeness, as it is known in the SIS, is one of the most evaluated criteria. It can be understood as the degree to which the spaces

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of an information system are filled in addition to the non-zero values.⁶ Spaces left blank and ignored are considered unfilled, and can be evaluated either alone or in conjunction with other quality dimensions.⁸

Considering the underreporting and under-notification of information, the data consolidated by VIVA are not an absolute reality. Thus, one of the guidelines proposed by the World Health Organization (WHO) is to improve and enhance the information sector for diagnosis, prevention, epidemiological surveillance and mental and social rehabilitation of victims of violence.⁹

In this way, it is necessary to expand the scope of studies that assess the quality of information, since this information helps in decision-making and subsidizes actions for confronting and preventing violence and other health-related problems. The large number of information ignored and the failure to complete the notification form can lead to misleading analysis and conclusions, likely leading to insufficient and ineffective measures. In this sense, the relevance of the present study comes from the need to identify possible flaws in this information system, specifically regarding the filling of the spaces in the forms, in order to promote greater visibility and quality of data on the reporting of violence against children.

OBJECTIVE

- To analyze the completeness of the records of violence against children.

MÉTHOD

This is a quantitative cross-sectional study using data from the official violence information system, the Violence and Accident Surveillance System (VIVA). The studied population comprised children from 0 years to 11 years, 11 months and 29 days who were victims of various forms of violence reported in the state of Pernambuco from 2009 to 2012.

Duplicate notifications for the same individual and episode of violence were identified after matching possible cases using the following variables: victim's name, date of birth, name of the victim's mother, and date of occurrence. Then, after a case-by-case assessment, the confirmed duplications were excluded.

Twenty-seven variables of the Individual Notice/Investigation Report on Domestic Violence, Sexual and/or other Forms of Violence were analyzed. The most relevant variables for adoption of measures to prevent

violence against children were considered to be included in the study. The variables were presented according to the sections in the notification form, namely: a) Individual Notification (Age, Sex, Pregnant Woman, Race/color, Schooling); b) Residence Data (Municipality of Residence, Neighborhood, Address); c) Data of the Person Assisted (Presence of any type of disability/disorder, and if so, what type of disability/disorder?); d) Data of the Occurrence (Municipality of occurrence, Neighborhood, Address, Place of occurrence, Has it occurred other times? Was the injury self-induced?); e) Typology of Violence (Type of violence, Means of aggression); f) Sexual Violence (If sexual violence occurred, which type? If penetration occurred, which type? Procedure performed); g) Consequence of the Violence; h) Data of the Probable Perpetrator (Tie/kinship with the person assisted, Suspected use of alcohol); and i) Outcome and Referral (Referral in the health sector, Referral of the person assisted to other sectors, Outcome of the case).

For a general analysis of completeness of the database, the average of the percentages of completion of each variable was calculated, and these were considered as dependent variables while the years studied were considered as independent variables. Completeness of the filling of variables was measured on the basis of the criteria of

Romero and Cunha ¹⁰, as follows: 'Excellent', when the variable presented more than 95% of completeness; 'Good', from 95% to 90% of completeness; 'Regular', from 90% to 80% of completeness; 'Bad' from 80% to 50% of completeness; and 'Very Bad', less than 50% of completeness.

The level of significance adopted was 5%, and the adjusted R² and p-values of the F test were calculated. The data were analyzed in the statistical package Statistical Package for Social Sciences (SPSS) version 20. The research was approved by the Ethics and Research Committee under CAAE 26809814.0.0000.5207.

RESULTS

In the period from 2009 to 2012, there were 4,278 notifications of violence against children in the state of Pernambuco. Of these, 26 were excluded because they were duplicated, leaving 4,252 cases remaining.

Regarding the records of violence against children in the years studied, it was observed that the notifications increased. The data call attention to the year 2012, which had 35.4% of all the notifications in the studied period, and a 212.6% increase in the number of cases between 2009 and 2012 (Figure 1). The analysis of the set of variables showed that 'Bad' completeness had a stationary tendency even despite the increase in the number of notifications (Figure 2).

Figure 1. Notification of cases of violence against children in the state of Pernambuco between 2009 and 2012. Recife (PE), Brazil, 2017.

Figure 2. Tendency of the completeness of the notifications of violence against children in the state of Pernambuco between the years 2009 to 2012. Recife (PE), Brazil, 2017.

From the 27 variables analyzed, the variables 'Age', 'Sex', 'Pregnant Woman' and 'Municipality of Residence' obtained 100% completion and were therefore classified as having 'Excellent' completeness; however, they are mandatory variables (Table 1). 'Bad' completeness was found in 13 variables, while two variables presented a good completion of the information: 'Neighborhood' and 'If so, what type of disability/disorder?' (Table 1). The variables that obtained the worst evaluations regarding completeness were: 'Has it occurred other times?' and 'Suspected use of alcohol'. Completeness was 'Very Bad' in the case of these variables (Table 2).

As for the tendency of the completeness, only the variable "If sexual violence occurred, which type?" presented a growing trend (Table 2); this means that there was an improvement in the filling of this variable in the period studied. On the other hand, the variable Suspected use of alcohol was the only one presenting a decreasing trend (Table 2) in completeness, indicating the worsening in the filling of the variable. The other variables analyzed had a stationary trend.

Table 1. Percentage of completion, trend and completeness of the sociodemographic characteristics of children according to the database of the Violence and Accident Surveillance System, 2009-2012. Recife (PE), Brazil, 2017.

Variables	2009 (n=482) % (95% IC)	2010 (n=914) % (95% IC)	2011 (n=1349) % (95% IC)	2012 (n=1507) % (95% IC)	T*	p	2009-2012 (n=4252) % (95% IC)	C
Individual Notification								
Age	100.0	100.0	100.0	100.0	S	-	100.0	Excellent
Sex	100.0	100.0	100.0	100.0	S	-	100.0	Excellent
Pregnant woman	100.0	100.0	100.0	100.0	S	-	100.0	Excellent
Race/Color	61.4 (56.4-66.4)	59.7 (54.7-64.7)	66.6 (61.8-71.4)	65.9 (61.1-70.7)	S	0.22	63.4 (58.5-68.3)	Bad
Schooling	76.7 (73.2-80.2)	79.7 (76.6-72.8)	79.1 (75.9-72.3)	79.4 (76.3-82.5)	S	0.29	78.7 (75.5-82.0)	Regular
Residence Data								
Municipality of Residence	100.0	100.0	100.0	100.0	S	-	100.0	Excellent
Neighborhood	90.0 (86.9-93.1)	94.2 (91.8-96.6)	92.9 (90.3-95.5)	84.9 (81.3-88.6)	S	0.48	90.5 (87.5-93.5)	Good
Address	85.9 (83.9-87.9)	84.9 (82.7-87.1)	87.4 (85.8-89.0)	83.5 (81.0-86.0)	S	0.63	85.4 (83.3-87.6)	Regular
Details of the Person Assisted								
Presence of any type of disability/disorder?	50.4 (45.3-55.5)	54.7 (49.6-59.8)	63.5 (58.6-68.4)	61.1 (56.1-66.1)	S	0.12	57.4 (52.4-62.5)	Bad
If so, what kind of disability/disorder?	91.5 (88.7-94.4)	85.7 (82.1-89.3)	89.7 (86.6-92.8)	96.1 (94.1-98.1)	S	0.47	90.8 (87.8-93.7)	Good

% = percentage of information filled; 95% CI = confidence interval; T * Trend; S = Stationary; I = Increasing; D = Decreasing; p = p-value; C = Completeness.
Source: SINAN.

Table 2. Percentage of completion, trend and completeness of the data on Violence against children according to the Violence and Accident Surveillance System database, 2009-2012. Recife (PE), Brazil, 2017.

Variables	2009 (n=482)	2010 (n=914)	2011 (n=1349)	2012 (n=1507)	T*	p	2009- 2012 (n=4252)	C
	% (95% IC)	% (95% IC)	% (95% IC)	% (95% IC)			% (95% IC)	
Date of the occurrence								
Municipality of the occurrence	88,8 (85,6-92,0)	71,3 (66,7-75,9)	70,8 (66,2-75,4)	82,0 (78,1-85,9)	S	0,6 9	78,2 (74,0-82,4)	Bad
Neighborhood	70,3 (65,6-75,0)	56,7 (51,6-61,8)	59,7 (54,7-64,7)	61,5 (56,5-66,5)	S	0,4 8	62,1 (57,1-67,0)	Bad
Address	66,2 (61,4-71,0)	50,9 (45,8-56,0)	55,6 (50,5-60,7)	59,3 (54,3-64,3)	S	0,6 8	58,0 (53,0-63,0)	Bad
Place of the occurrence	76,6 (72,3-80,9)	71,6 (67,0-76,2)	75,8 (71,4-80,2)	73,5 (69,0-78,0)	S	0,7 1	74,4 (69,9-78,8)	Bad
Has it occurred other times?	41,8 (37,1-46,6)	38,3 (33,3-43,3)	41,3 (36,3-46,3)	45,8 (40,7-50,9)	S	0,3 7	39,3 (34,3-44,3)	Very Bad
Was the injury self-induced?	76,6 (72,3-80,9)	77,5 (75,9-79,1)	77,6 (76,4-78,8)	77,9 (76,8-79,0)	S	0,0 7	72,9 (70,3-75,5)	Bad
Typology of Violence								
Type of Violence	85,2 (81,6-88,8)	89,0 (85,8-92,2)	84,1 (80,4-87,8)	70,9 (66,3-75,5)	S	0,2 2	82,3 (78,4-86,2)	Regula r
Means of aggression	52,8 (47,7-57,9)	73,6 (69,1-78,1)	72,0 (67,4-76,6)	61,7 (56,7-66,7)	S	0,6 7	65,0 (60,2-69,9)	Bad
Sexual Violence								
If sexual violence occurred, which type?	83,3 (79,5-87,1)	86,5 (83,0-90,0)	87,3 (83,9-90,7)	89,2 (86,0-92,4)	I	0,0 3	86,6 (83,1-90,1)	Regula r
If penetration occurred, which type?	80,4 (76,4-84,5)	85,5 (81,9-89,1)	85,9 (82,4-89,5)	88,2 (84,9-91,5)	S	0,0 7	85,0 (81,4-88,6)	Regula r
Procedures performed	83,6 (79,8-87,4)	88,3 (85,0-91,6)	88,8 (85,6-92,0)	89,4 (88,6-90,2)	S	0,1 3	87,5 (84,1-90,9)	Regula r
Consequence of Violence								
Consequence of violence	55,6 (50,5-60,7)	64,7 (59,8-69,6)	68,4 (63,7-73,1)	60,9 (56,0-65,9)	S	0,5 4	62,4 (57,5-67,4)	Bad
Data of the probable perpetrator								
Tie/kinship with the person assisted	71,6 (67,0-76,2)	74,5 (70,1-79,0)	66,0 (61,2-70,8)	56,6 (51,5-61,7)	S	0,1 2	67,2 (62,4-72,0)	Bad
Suspected use of alcohol	43,8 (38,7-48,9)	43,5 (38,4-48,6)	40,8 (35,8-45,8)	39,1 (34,1-44,1)	D	0,0 3	41,8 (36,8-46,8)	Very Bad
Outcome and Referral								
Referral in the health sector	63,3 (58,4-68,2)	70,4 (65,7-75,1)	70,4 (65,7-75,1)	65,4 (60,6-70,3)	S	0,7 7	67,4 (62,6-72,2)	Bad
Referral to other sectors	76,6 (72,3-80,9)	82,9 (79,1-86,8)	72,3 (67,7-76,9)	47,1 (42,0-52,2)	S	0,1 9	69,7 (65,0-74,4)	Bad
Outcome of the case	60,1 (55,1-65,1)	68,5 (63,8-73,2)	71,1 (66,5-75,7)	71,9 (67,3-76,5)	S	0,0 9	67,9 (63,1-72,7)	Bad

% = percentage of information filled; 95% CI = confidence interval; T * Trend; S = Stationary; I = Increasing; D = Decreasing; p = p-value; C = Completeness.
Source: SINAN.

DISCUSSION

The evaluation of the number of notifications shows a 212.6% increase in the number of notifications in the period from 2009 to 2012. This can be explained by the

publication of the Administrative Rule MS/GM n 2.472, of August 31, 2010, which guides the mandatory notification of violence in the health sector, and is contemplated in the National Disease Notification System (Sinan) in the Violence and Accident Surveillance (VIVA)

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module.¹¹ The growing number of notifications corroborates findings in the state of Pernambuco,¹² in the country¹³ and in international instances.¹⁴ However, it is necessary to analyze this data with caution, for other factors not evaluated in this study may have had an impact on the increase in the prevalence of violence. Thus, it is not possible to say if violence in the state has in fact increased, or if that increase is a result of the strengthening of the work of epidemiological surveillance.

The variables Age, Sex, Pregnant Woman and Municipality of Residence presented 100% of completion, what was expected, since they are mandatory variables. The 'Excellent' completion for the variables Age and Sex has been found in other studies.^{16,6} Regarding the variable Pregnant woman, the MOH says that the option "Does not apply" must be checked when the victim is a male or when the victim presents age incompatible with pregnancy, although the MOH does not determine such age. In this sense, the "Excellent" result for this variable may have occurred because we analyzed a population of children, which facilitated the completion.

In the Individual Notification section, the variable Race/color stood out by presenting 'Bad' completeness (63.6%). The importance of identifying this variable in the records of health problems as well as in cases of violence is very important, for skin color may be associated with a greater vulnerability to violence.¹⁷ A study that evaluated sexual exploitation of children and adolescents showed a higher prevalence in the black population, alerting on the need for a good completion of this variable so that specific policies may be directed to vulnerable groups.¹⁸

A study on the race/color in the national health information systems showed that the percentage of completion of this field varied little in the last years, remaining below 30% in all years.¹⁹⁻²¹ These results reflect the importance of the ethnic registry of the population. This would allow the visualization of the most critical cases, such as the most vulnerable population to the events that evolve with greater gravity.¹⁷

In the section Residence Data, the neighborhood presented a 'good' completeness, revealing that professionals are aware of the importance of completing this information. This information contributes to health surveillance by making it possible to search the victims through the network responsible for monitoring such cases. An evaluation of the completeness of the

Mortality System in Fortaleza-CE21 found a completion of 96.97% for neighborhood. On the other hand, a study carried out in Minas Gerais²² pointed out different data of the present research, in which the variables of address of residence had low completeness.

As for the variable Presence of any type of disability/disorder?, this presented 'Bad' completeness, corroborating other studies.¹³ However, the space for detailing of the type of disability (If so, what type of disability/disorder?) showed 'Good' completeness. It is inferred that the poor evaluation in the first variable may have occurred possibly due to a problem in the interpretation of the professional who completed the INR, who may have thought that because the second answer was more detailed, it would contemplate the previous variable. Investigating violence in children with disabilities is extremely relevant because a disability make children even more vulnerable to violence.²³

The variables Municipality, Neighborhood, Address and Place of occurrence of the section Data of the Occurrence had 'Bad' completeness. Similar results have been found in other studies that evaluated the VIVA,^{12,15} as well as analyses of data on deaths from external causes.²¹ The home has been pointed out as the main place where violent episodes occur at all ages, followed by public streets.^{13,24} This occurs because the home is the place where children spend most of the time. Furthermore, there is an educational culture of deprivation of freedom and warnings that may culminate in the eventual use of violence, with physical aggression.²⁶ In this sense, it is important to know mechanisms to prevent and also help to detect cases of domestic violence. Not least important, violence in public streets can be monitored and mapped to guide measures public protection and safety in places where the occurrence of the violence is more frequent.

As for the repetition of violent episodes, the variable Has it occurred other times? presented the worst completeness of the study: 39.3%. One of the characteristics of violence against children in Brazil is the recurrence of cases, which is around 43.6% 21 and 50%.²⁴ Recurring cases of violence serve as a subsidy for action planning in decision-making to avoid further episodes. Violence against the age group studied is a veiled phenomenon that can become chronic, producing a cycle of suffering with deep traumas throughout the lives of these children.²⁵

It is important to highlight that aspects related to the generational transmission of child and youth violence can negatively interfere in the process of educational training, performance and psychosocial development. Children and adolescents who suffer violence may present aggressive behavior that they may reproduce throughout their lives, perpetuating the cycle of victimization - aggression.²⁴

In the Typology of violence, the data Means of Aggression presented 'bad' completeness in the four years studied, corroborating other studies carried out in Pernambuco.^{12,15} A national study conducted in 2017 showed that homicides and suicides occur mainly with aid of melee weapons or firearms in all age groups except for children up to 10 years of age, in whose case other means of aggression predominate.²⁶

As for the variable If sexual violence occurred, which type? the results showed an increasing tendency indicating improvement in the filling of this information. Despite the underreporting, the improvement in the quality of the filling for this type of aggression can be explained by the greater visibility of this problem resulting from social pressure and repercussion in the media.²⁷ In 2010, the MOH published a manual that guides health managers and professionals to provide care for children in situations of violence and their families, guiding and empowering them regarding the importance of notification. The material points out the necessary tools to promote better care, prevent and confront the violence against children, adolescents and their families.³ When there is better awareness and professional qualification, the identification of the cases improves and more complete notifications are possible.²⁸

Regarding the Consequence of violence, this section showed 'Bad' completeness. A study carried out in Bahia,²⁴ showed that 83.8% of the reported cases of violence against children and adolescents presented post-traumatic stress, with a 4.2% occurrence of pregnancy and 9% of STD. This finding alone justifies the importance of having this space completely and correctly filled out, since, in addition to the information, the victim must have his or her physical and psychological integrity rehabilitated.

After the evaluation of the victim, future actions are planned and the intra-sector and extra-sector care network must be activated, providing the assistance recommended by the MOH for the prevention of unwanted pregnancies or Sexually Transmissible Infections (STIs).⁴ Omission of such care can

have medium- and long-term consequences with worsening of the physical and psychological damage caused to the victim.²⁹

In the section Data of the probable perpetrator, 'Bad' completeness was found for the variable Tie/kinship with the person assisted. This is a very important finding because detecting the aggressor allows holding him accountable and removing him from having contact with the child through the activation of protection network in order to interrupt the cycle of violence. This result corroborates a study in which this variable presented a decrease in its completion.¹² Studies have revealed that in cases of child abuse, especially when involving sexual abuse, the perpetrator is usually someone familiar or known by the child. Considering this, a broader debate regarding the social and family environment is important, and family and community awareness and involvement are fundamental for effective prevention and protection actions and programs, in view of the high vulnerability of this population.²⁴ Thus, it is necessary to understand how social relations and family conformation take place so as to adopt effective actions in confronting this worrisome public health problem.

When we evaluated the variable Suspected use of alcohol, the second worst evaluation of the research was detected. The completeness was 'Very Bad', and these findings are supported in the literature.³⁰ The completion of this variable is important because studies show the relationship between alcohol use and violent behaviors against various age groups.¹² A nationwide study with 21,199 children victims of violence showed that 11.9% of the aggressors were under the influence of alcohol at the moment of the aggression.¹¹

On the Outcome and Referral, all variables had 'Bad' completeness, suggesting that the registration of this important space has not been properly done or the referrals were not performed. In this case, it is inferred that the flawed filling resulted from lack of knowledge of the professionals about the protection network.¹² Referrals were made to the Protection and Assistance Instances (40.0%), Reference Centers (25.8%) and Police stations (18.9%), with a small number of referrals carried out in order to maintain and ensure the continuity of care for these victims, as revealed in the study conducted in Feira de Santana (BA).²⁴

The variable of the Outcome of the case had 'Bad' completeness, corroborating the MOH publication that showed that 24.8% of the records had no information on the outcome of the cases. This variable is

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fundamental for obtaining information for epidemiological purposes, as well as for promoting a correct diagnosis of the health situation resulting from violence at the regional and national levels, facilitating the taking of measures to face this aggravation.¹²

CONCLUSION

The present analysis of completeness made it possible to diagnose some gaps in the quality of the information, which can result in imprecision or bias in the characterization of the cases of violence against children in Pernambuco. This reflects the need for constant qualification of professionals for the diagnosis and the notification of the cases, in addition to raising awareness on the importance of completing the INR.

Therefore, it is the responsibility of health institutions to invest in activities to guide and qualify professionals for the correct completion of the INR, stressing the real contributions to the confrontation and prevention of violence, besides the protection and care for victims and their families, as well as to the accountability of the aggressor.

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REFERÊNCIAS

1. Moreira GAR, Vasconcelos AA, Andrade L. Instrumentação e conhecimento dos profissionais da equipe saúde da família sobre a notificação de maus-tratos em crianças e adolescentes. Rev Paul Pediatr [Internet]. 2013 [cited 2015 Aug 23];31(2):223-30. Available from: <http://www.redalyc.org/articulo.oa?id=406038968014>.
2. Rolim, ACA. Moreira GAR, Gondim SMM, Paz SS, Vieira LJES. Fatores associados à notificação de maus-tratos em crianças e adolescentes realizada por enfermeiros na Atenção Primária à Saúde. Rev Lat Am Enfermagem [Internet]. 2014 [cited 2016 Aug 23];22(6):1048-55. Available from: <http://www.redalyc.org/articulo.oa?id=281433512022>.
3. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Linha de cuidado para a atenção integral à saúde de crianças, adolescentes e suas famílias em situação de violências: orientação para gestores e profissionais de saúde. Brasília: Ministério da Saúde; 2010 [cited 2016 Sept 25]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/linha_cuidado_crianças_famílias_violências.pdf.
4. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Viva: instrutivo de notificação de violência doméstica, sexual e outras violências. Brasília: Ministério da Saúde; 2011 [cited 2016 May 25]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/viva_instrutivo_notificacao_violencia_domestica.pdf.
5. Guimarães NA, Farias EP, Barbosa AMFC. O Incesto como Problema de Violência: Atendimento e Estratégias de Interrupção. In: Lima CA. Violência faz mal à saúde. Brasília: Ministério da Saúde; 2004. p. 81-6.
6. Correia LOS, Padilha BM, Vasconcelos SML. Métodos para avaliar a completude dos dados dos sistemas de informação em saúde do Brasil: uma revisão sistemática. Ciênc saúde coletiva [Internet]. 2014 [cited 2017 July 28];19(11):4467-78. Available from: <http://www.scielo.br/pdf/csc/v19n11/1413-8123-csc-19-11-4467.pdf>
7. Silva, ARD, Oliveira TMD, Lima CFD, Rodrigues LB, Bellucci JN, Carvalho MGO. Information systems as a tool for decision making in health care: an integrative review. J Nurs UFPE on line [Internet]. 2016 [cited 2017 July 28];10(9):3455-62. Available from: DOI: 10.5205/reuol.9571-83638-1-SM1009201634.
8. Glatt, R. Análise da qualidade da base de dados de AIDS do Sistema de Informação de Agravos de Notificação (SINAN) [tese]. 2005. Rio de Janeiro: Fundação Oswaldo Cruz - FIOCRUZ, 2005.
9. Minayo MC. Violência e saúde. Rio de Janeiro: Fiocruz; 2006.
10. Romero DE, Cunha CB. Avaliação da qualidade das variáveis epidemiológicas e demográficas do Sistema de Informações sobre Nascidos Vivos, 2002. Cad Saúde Pública [Internet]. 2007 [cited 2017 July 18];23(3):701-14. Available from: <http://www.scielo.br/pdf/csp/v23n3/28.pdf>.
11. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. Viva: instrutivo de notificação de violência doméstica, sexual e outras violências. Brasília: Ministério da Saúde; 2013.

Silva LMP da, Santos TMB dos, Santiago SRV et al.

Analysis of the completeness of the notifications...

12. Abath MB, Lima MLLT, Lima PS. Avaliação da completude, da consistência e da duplicidade de registros de violências do Sinan em Recife, Pernambuco, 2009-2012. *Epidemiol Serv Saúde* [Internet]. 2014 Mar [cited 2017 July 11];23(1):131-42. Available from: <http://scielo.iec.pa.gov.br/pdf/ess/v23n1/v23n1a13.pdf>.
13. Assis SGD, Avanci JQ, Pesce RP, Pires TDO, Gomes DL. Notificações de violência doméstica, sexual e outras violências contra crianças no Brasil. *Cien Saude Colet* [Internet]. 2012 [cited 2017 July 11];17(9):2305-2317. Available from: <http://www.redalyc.org/pdf/630/63023703007.pdf>.
14. Butchart, A, Mikton C. Global status report on violence prevention; 2014.
15. Santos TMB, Cardoso MD, Paiva SM, Pitangui ACR, Melo JPR, Silva LMP. Completude das notificações de violência perpetrada contra adolescentes em Pernambuco, Brasil. *Ciênc saúde coletiva* [Internet]. 2016 Dec [cited 2017 July 28];21(12):3907-16. Available from: <http://www.scielo.br/pdf/csc/v21n12/1413-8123-csc-21-12-3907.pdf>.
16. Lankarani KB, Khosravizadegan Z, Rezaianzadeh A, Honarvar B, Moghadami M, Faramarzi H et al. Data coverage of a cancer registry in southern Iran before and after implementation of a population-based reporting system: a 10-year trend study. *BMC Health Serv Res* [Internet]. 2013 [cited 2017 July 28];13(1):169-75. Available from: <http://www.biomedcentral.com/1472-6963/13/169>.
17. Sinhoretto J, Silvestre G, Schlittler MC. Desigualdade Racial e Segurança Pública em São Paulo: letalidade policial e segurança pública. *Revista Semestral do Departamento e do Programa de Pós-Graduação em Sociologia da UFSCar* [Internet]. 2014 [cited 2016 July 01]. Available from: http://www.ufscar.br/gevac/wp-content/uploads/Sum%C3%A1rio-Executivo_FINAL_01.04.2014.pdf.
18. Deslandes S, Mendes CHF, Lima JS. Indicadores das ações municipais para a notificação e o registro de casos de violência intrafamiliar e exploração sexual de crianças e adolescentes. *Cad Saúde Pública* [Internet]. 2011 Aug [cited 2017 July 28];27(8):1633-45. Available from: <http://www.scielo.br/pdf/csp/v27n8/18.pdf>.
19. Braz, RM, Oliveira PTR, Reis AT, Machado NMS. Avaliação da completude da variável raça/cor nos sistemas nacionais de informação em saúde para aferição da equidade étnico-racial em indicadores usados pelo Índice de Desempenho do Sistema Único de Saúde. *Saúde debate* [Internet]. 2013 Dec [cited 2017 July 28];37(99):554-62. Available from: <http://www.scielo.br/pdf/sdeb/v37n99/a02v37n99.pdf>.
20. Dombrowski JG, Ataíde R, Marchesini P, Souza RM, Marinho CRF. Effectiveness of the Live Births Information System in the Far-Western Brazilian Amazon. *Ciênc saúde coletiva* [Internet]. 2015 Apr [cited 2017 July 28];20(4):1245-54. Available from: <http://www.scielo.br/pdf/csc/v20n4/1413-8123-csc-20-04-01245.pdf>.
21. Messias KLM, Bispo Júnior JP, Pegado MFQ, Oliveira LC, Peixoto TG, Sales MAC. Qualidade da informação dos óbitos por causas externas em Fortaleza, Ceará, Brasil. *Ciênc saúde coletiva* [Internet]. 2016 Apr [cited 2017 July 24];21(4):1255-67. Available from: <http://www.redalyc.org/pdf/630/63044891027.pdf>.
22. Muguande OF, Ferraz ML, Franca E, Gontijo ED. Avaliação da qualidade do Sistema de Vigilância Epidemiológica de Doença de Chagas Aguda em Minas Gerais, 2005-2008. *Epidemiol Serv Saúde* [Internet]. 2011 Sept [cited 2017 July 28];20(3):317-25. Available from: <http://scielo.iec.pa.gov.br/pdf/ess/v20n3/v20n3a06.pdf>.
23. Wissink IB, Vugt E, Moonen X, Stams GJM, Hendriks J. Sexual abuse involving children with an intellectual disability (ID): A narrative review. *Res Dev Disabil* [Internet]. 2015 [cited 2017 July 28];36:20-35. Available from: <https://doi.org/10.1016/j.ridd.2014.09.007>.
24. Souza CS et al. Sistema de Vigilância de Violências e Acidentes/VIVA e a notificação da violência infanto-juvenil, no Sistema Único de Saúde/SUS de Feira de Santana-Bahia, Brasil. *Ciênc saúde coletiva* [Internet]. 2014 Mar [cited 2017 July 28];19(3):773-84. Available from: <http://www.scielo.br/pdf/csc/v19n3/1413-8123-csc-19-03-00773.pdf>.
25. Rates SMM, Melo EM, Mascarenhas MDM, Malta DC. Violence against children: an analysis of mandatory reporting of violence, Brazil 2011. *Ciênc saúde coletiva* [Internet]. 2015 Mar [cited 2017 July 05];20(3):655-65. Available from: <http://www.scielo.br/pdf/csc/v20n3/1413-8123-csc-20-03-00655.pdf>.
26. Malta, DC et al. Mortality and years of life lost by interpersonal violence and self-harm: in Brazil and Brazilian states: analysis of the estimates of the Global Burden of Disease Study, 1990 and 2015. *Rev bras Epidemiol*

[Internet]. 2017 May [cited 2017 July 28];20(Suppl 1):142-56. Available from: http://www.scielo.br/pdf/rbepid/v20s1/en_1980-5497-rbepid-20-s1-00142.pdf.

27. Dornelles AAF, Mincato R, Grassi PC. Violência e seus múltiplos condicionamentos históricos: perfil da mulher vítima de violência doméstica no Brasil, Rio Grande do Sul e Caxias do Sul. *Diálogo* [Internet]. 2014 [cited 2017 July 28];27:39-56. Available from: <http://revistas.unilasalle.edu.br/index.php/Diálogo/article/view/1773/1213>

28. Moreira GAR, Vieira LJEDS, Deslandes SF, Pordeus MAJ, Gama IDS, Brilhante AVM. Fatores associados à notificação de maus-tratos em crianças e adolescentes na atenção básica. *Ciênc saúde coletiva* [Internet]. 2014 Oct [cited 2017 July 28];19(10):4267-76. Available from: <http://www.scielo.br/pdf/csc/v19n10/1413-8123-csc-19-10-4267.pdf>.

29. Zambon MP, Jacintho ACA, Medeiros MM, Guglielminetti R, Marmo DB. Violência doméstica contra crianças e adolescentes: um desafio. *Rev Assoc Med Bras* [Internet]. 2012 [cited 2017 May 28];58(4):465-41. Available from: <https://pdfs.semanticscholar.org/2e71/bac85a267e61fe6731611a04b7790b320045.pdf>.

30. Waiselfisz JJ. Mapa da violência 2012: crianças e adolescentes do Brasil. Rio de Janeiro: Cebela e Flacsol; 2012.

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