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ORIGINAL ARTICLE

Inconsistency in notifications of violence in the State of Rio de Janeiro from 2015 to 2021

Inconsistências nas notificações de violência no estado do Rio de Janeiro de 2015 a 2021

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DOI: 10.1590/2358-28982023E18948I

ABSTRACT The objective was to identify inconsistencies in the completion of the notification form for violence in the State of Rio de Janeiro and to describe its trend from 2015 to 2021. This is a repeated panels study, using the database of the National System of Notifiable Diseases (SINAN) available by the State of Rio de Janeiro, but with age restricted from 18 to 59 years. A total of 147,210 notifications were eligible for the study. Of these, in 33,117 (22.5%), the type of violence was not registered, but the percentage has decreased in the period (β =-5.67; p < 0.001). Among the inconsistencies is the incompatibility in the record of biological sex and gender identity (19.8%), with stability in the period (p = 0.497). Records of types of interpersonal violence and characteristics of the aggressor were also identified in notifications of self-inflicted violence, as well as records of means of aggression related to physical violence in reports of psychological violence. The high percentage of inconsistencies indicates the need to improve the information system and provide continued training for health professionals, given that notification is fundamental for drawing up local diagnoses and supporting intervention strategies to tackle violence.

KEYWORDS Health Information Systems. Disease notification. Violence. Human rights.

RESUMO *Objetivou-se identificar inconsistências no preenchimento da ficha de notificação de violência no estado do Rio de Janeiro e descrever sua tendência no período de 2015 a 2021. Trata-se de um estudo do tipo painéis repetidos, sendo utilizado o banco de dados do Sistema Nacional de Agravos de Notificação (Sinan) disponibilizado pelo estado do Rio de Janeiro, mas restrito à faixa etária de 18 a 59 anos. Foram elegíveis para o estudo 147.210 notificações. Destas, em 33.117 (22,5%), o tipo de violência não foi registrado, mas o percentual tem decrescido no período (β = -5,67; p < 0,001). Dentre as inconsistências, destaca-se a incompatibilidade no registro de sexo biológico e identidade de gênero (19,8%), com estabilidade no período (p = 0,497). Também foram identificados registros de tipos de violência interpessoal e características do agressor nas notificações de violência autoprovocada, bem como registros de meios de agressão relacionados com violência física nas notificações de violência psicológica. O alto percentual de inconsistências identificadas sinaliza a necessidade de aprimoramento do sistema de informação e capacitação continuada dos profissionais de saúde, tendo em vista que a notificação é fundamental para elaborar diagnóstico local e subsidiar estratégias de intervenção para enfrentamento da violência.*

PALAVRAS-CHAVE *Sistema de Informação em Saúde. Doenças e agravos de notificação compulsória. Violência. Direitos humanos.*

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Introduction

In Brazil, reporting cases of violence became compulsory in 2011[1], even though they had already been established as compulsory by various normative and legal acts, such as the Child and Adolescent Statute (ECA)[2], the compulsory reporting of violence against women[3] and the Elderly Statute[4]. Subsequently, other vulnerable social segments were incorporated, such as Lesbians, Gays, Bisexuals, Transvestites, Transsexuals and Transgender, Queers, Intersex, Asexual people, and others (LGBTQIA+)[5] to comply with the National Policy for the Integral Health of Lesbians, Gays, Bisexuals, Transvestites and Transsexuals[6]. The instruments used in health surveillance have been improved to incorporate health, inclusion, and social justice policies which were established based on the actions and influence of social movements[7].

In addition to understanding the problem and giving it visibility, notification is one aspect within the line of care that allows the individual to be taken in and referred for the required assistance in various fields[8]. It begins with filling out a standardized record, which is then entered into the Notifiable Diseases Information System (SINAN). This system allows data to be consolidated from local and national levels[9]. Some fields on various information system forms have been reported as incomplete, particularly those not directly related to the disease, event, or condition being notified, such as race or skin color, but they tend to be improved with time as the system is implemented[10].

Violence notification, however, has fields that include concepts recently incorporated into the society and most professionals may not yet understand them, which may result in errors when filling out the form[11]. Furthermore, the fields incorporated within the notification form, such as gender identity and sexual behavior, are still unavailable for consultation on the National Health Information website and in most Brazilian states and municipalities. Others have no longer made these fields available on their websites, such as the state of Rio de Janeiro whose data could be accessed at least until 2017[11].

Studies on the quality of compulsory reports in Brazil are still scarce[12], especially those on violence – their inclusion in SINAN is relatively recent. Thus, poor-quality information can influence the development of public policies and also of strategies to improve general population's health.

Therefore, this study aims to identify inconsistencies in filling out the violence notification form in the state of Rio de Janeiro and describe its trend from 2015 to 2021.

Methodology

This is a repeated panel study combining cross-sectional and cohort studies[13]. The database used was the notification of interpersonal and self-inflicted violence from SINAN, provided by the state of Rio de Janeiro from 2015 to 2021. Variables related to the socioeconomic and demographic characteristics of the victim and the aggressor, year of occurrence, characteristics of the aggression, and notifying unit available on the notification forms; were analyzed[14].

The identification and assessment of inconsistencies in the filled-out fields of each notification form was based on recommendations listed in the Ministry of Health's instructional manual for filling out notifications of violence[14] and classified as proposed by Girianelli et al.[11(319)]:

a. Non-compliance – inadequate filling, but which does not fully compromise the understanding or analysis of the data. Situation in which the correct classification of a field would be 'not applicable', but it is classified as 'ignored', 'no', or the field is left blank.

b. Incongruence: classification of two different fields in such a way that they are not simultaneously correct, compromising the

understanding and the data analysis. For instance, a situation in which the violence suffered by an adult victim is classified as child pornography, i.e. one of the fields has been filled out incorrectly.

The indicators and classifications were made in accordance with those proposed by Girianelli et al.[11]:

a) Percentage of inconsistency:

$$\frac{\text{Number of notification forms with inconsistency in the categories of the related fields}}{\text{Total number of notification forms with fields under analysis}}$$

b) Median (Med) of the inconsistencies for each group of related fields.

c) Inconsistency assessment of non-compliance: low (< 10%), moderate (10% to 30%), and high (> 30%).

d) Inconsistency assessment of incongruence: low (< 0.5%), moderate (0.5% to 10%) and high (> 10%).

The annual percentage of inconsistency was calculated by considering, in the numerator, the number of forms with inconsistencies for certain categories of the related fields and, in the denominator, only the number of notification forms containing the field categories under analysis. The median (Med) of inconsistencies for the period was also calculated for each group of related fields. Inconsistencies relating to non-compliance were classified as low, when less than 10%; moderate, between 10% and 30%; and high, when greater than 30%. On the other hand, incongruences were classified as low when less than 0.5%; moderate, between 0.5% and 10%; and high when greater than 10%[11].

The temporal trend was described using the year of notification as the independent variable, and the proportion of each characteristic as the dependent variable. The evaluation was carried out by generalized linear regression using the Prais-Winsten method[15]. The increase or decrease in proportions was assessed based on the regression coefficient (β) and its statistical significance ($p \leq 0.05$). In cases of a statistically significant trend, the existence of residual autocorrelation was assessed using the Durbin-Watson statistic (d)[16]. Given the availability of seven years of records in the database, the statistics results between 1.356 and 2.644 indicate no autocorrelation; above 3.300, negative autocorrelation; and below 0.700, positive autocorrelation. The other intervals make up a zone of indecision in which autocorrelation cannot be ruled out. The data was analyzed using the statistical program R version 3.4.3.

The research (CAAE: 54012221.2.0000.5240) was approved by the Research Ethics Committee (CEP) of the National School of Public Health Sergio Arouca, number 5.170.411, issued on December 16, 2021.

Results

Between 2015 and 2021, the cases of violence reported in the state of Rio de Janeiro were 248,915, of which 248,415 (99.8%) were residents of the state. Of these, 147,260 (59.2%) occurred in the age group of 18 to 59 years. Fifty records were excluded, of which 26 were residents of the state of Rio de Janeiro who had been notified in other states, and 24 were of unknown sex with no information on gender identity.

A total of 147,210 notifications were eligible for the study. Of these, the type of violence was not notified in 33,117 cases (22.5%), ranging from 41.8% in 2015 to 7.9% in 2021. Non-compliance was moderate (Med = 26.2%), but the percentage has decreased over the period (β = -5.67; $p < 0.001$), although there is a possibility of negative autocorrelation (d = 2.714) (data not shown).

Incompatibility in the record of biological sex and gender identity corresponded to 19.8% of notifications of violence against transgender people in the period, with a high level of incongruence (Med = 24.8%)

which was higher for transgender women (Med = 18.9%), but it was also high for transgender men (Med = 5.9%) (*table 1*). This type of error has remained stable over the period (p = 0.497) despite a slight reduction in 2021 (16%).

Table 1. Number and percentage of biological sex incompatible with gender identity by year of notification. Rio de Janeiro, 2015 to 2021[a]

Biological sex and gender identity	2015		2016		2017		2018		2019		2020		2021		Total				
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Med	β	p
Female Sex and Transvestites	2	0.8	1	0.3	0	0.0	0	0.0	0	0.0	2	0.8	0	0.0	5	0.2	0.0	-0.04	0.572
Female Sex and Trans Woman	45	18.9	34	10.0	53	22.3	45	18.9	45	18.9	45	18.9	125	13.7	392	16.1	18.9	0.27	0.657
Male and Trans Man	14	5.9	4	1.2	5	5	14	5.9	14	5.9	14	5.9	21	2.3	86	3.5	5.9	0.15	0.662
Total of transgender people notifications with incompatible records	61	25.6	39	11.5	58	24.4	59	24.8	59	24.8	61	25.6	146	16.0	483	19.8	24.8	0.59	0.497
Total of transgender people notifications	238	100.0	339	100.0	238	100.0	238	100.0	238	100.0	238	100.0	910	100.0	2439	100.0	-	-	-

Source: Own elaboration.

[a] Data made available on 01/05/2022.

Likewise, there was incongruence in the record of adult referral to institutions for children, adolescents, and older people. Usually, this type of error shows low incongruence (Med < 0.5%), but in the case of referrals to the Guardianship Council, incongruence was moderate (Med = 0.8%) and tended to increase over the period (β = 0.05; p = 0.007).

Among the victims' characteristics, non-compliance was high for unknown data of schooling (Med = 58.8%), occupation (Med = 77.8%), marital status (Med = 37.5%) and disability (Med = 40.2%), and moderate for race/skin color (Med = 18.8%). There was a decrease in non-compliance for race/skin color left blank (β = - 0.43; p = 0.016), education ignored (β = -1.36; p = 0.001), marital status left blank (β = -0.86; p = 0.001) and disability or disorder ignored (β = -3.80; p=0.001) (*table 2*). Marital status with ignored record also showed a decline (β= - 3.12; p < 0.001), although there is a possibility of negative autocorrelation (d = 2.851). Marital status with a 'not applicable' record showed a slight upward trend in the period (β= 0.07; p = 0.015). The date of birth was not entered in 2.9% of the notifications (data not shown), but age was registered because it was a mandatory field.

Table 2. Number and percentage of non-compliance with the victim characteristics by year of notification. Rio de Janeiro. 2015 to 2021[a]

Characteristics	2015		2016		2017		2018		2019		2020		2021		Total					
of victims	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Med	β	p	d
Race/skin color																				
Ignored	2650	16.1	4687	26.1	6953	34.3	4668	19.9	4898	18.8	3282	15.7	2979	13.5	30117	20.5	18.8	-1.56	0.296	-
Blank	404	2.5	448	2.5	334	1.6	54	0.2	42	0.2	70	0.3	46	0.2	1398	0.9	0.3	-0.43	0.016	1.449
Schooling Ignored	10173	61.9	11080	61.7	11925	58.8	14174	60.4	15131	58.0	11398	54.6	12018	54.4	85899	58.4	58.8	-1.36	0.001	2.100
Occupation Ignored	12644	76.9	14317	79.7	15795	77.8	18705	79.7	20542	78.8	15371	73.7	16480	74.6	113854	77.3	77.8	-0.66	0.157	-
Marital status																				
Blank	1595	9.7	1270	7.1	1488	7.3	1831	7.8	1364	5.2	1019	4.9	779	3.5	9346	6.3	7.1	-0.86	0.001	2.228
Ignored	7278	44.3	7983	44.4	7604	37.5	8862	37.8	9027	34.6	5816	27.9	6370	28.8	52940	36.0	37.5	-3.12	< 0.001	2.851
Not applicable	157	1.0	206	1.1	304	1.5	285	1.2	366	1.4	283	1.4	335	1.5	1936	1.3	1.4	0.07	0.015	2.214
Disability or disorder																				
Blank	787	4.8	721	4.0	1076	5.3	1563	6.7	1196	4.6	903	4.3	609	2.8	6855	4.7	4.6	-0.24	0.388	-
Ignored	8714	53.0	9373	52.2	9064	44.7	9447	40.2	9645	37.0	6983	33.5	7252	32.8	60478	41.1	40.2	-3.80	< 0.001	1.753
Total of notifications	16436	100.0	17965	100.0	20291	100.0	23475	100.0	26074	100.0	20869	100.0	22100	100.0	147210	100.0	-	-	-	-

Source: Own elaboration.

[a] Data made available on 01/05/2022.

As for the lack of information about place of residenc, non-compliance was high for the district code (Med = 61.4%) and moderate for the neighborhood code (Med = 22.6%), which showed a downward trend (β = -1.84; p < 0.001). The zone code showed a slight upward trend (β = 0.51; p = 0.020), but with a low percentage (Med = 1.7%).

Non-compliance related to failing to record the place and time of the violence was high for the district (Med = 74.9%), neighborhood code (Med = 57.6%), neighborhood name (Med = 31.1%) and time (Med = 62%); and moderate for the zone (Med = 11.4%). The trend was downwards for the absence of information for district (β = -2.07; p = 0.001) and time of occurrence (β = -2.64; p = 0.030). The neighborhood code of occurrence was also decreasing (β = -4.16; p = 0.013), but there is the possibility of positive autocorrelation (d = 1.348). The other variables still do not indicate a drop in the period (p ≥ 0.261).

Among notifications of self-inflicted violence, incongruence was high for physical violence (Med = 27.7%), psychological violence (Med = 8.9%) and other types of violence (72.4%), and moderate for torture (0.6%) and aggression by threat (1.5%) (*table 3*). However, incongruences were decreased in relation to misclassification of physical violence (β = -2.58; p = 0.011) and financial violence (β = -0.40; p = 0.009). For the other types of violence, although there was also a drop (β = -1.73; p = 0.011), positive autocorrelation is possible (d = 1.143). Together, the records for human trafficking, child pornography, and sexual exploitation accounted for eight notifications in the period. The other incongruous records remained stable over the period (p ≥ 0.078).

Table 3. Number and percentage of type and form of violence reported as self-inflicted by year of notification. Rio de Janeiro, 2015 to 2021[a]

Type and form of recorded violence	2015		2016		2017		2018		2019		2020		2021		Total					
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Med	β	p	d
Physical violence	592	44.3	504	30.9	951	37.2	807	23.9	1285	25.5	1241	27.7	1196	24.6	6576	28.2	27.7	-2.58	0.011	1.601
Psychological violence	126	9.4	108	6.6	202	7.9	249	7.4	493	9.8	397	8.9	433	8.9	2008	8.6	8.9	0.26	0.172	-
Torture	15	1.1	10	0.6	12	0.5	17	0.5	31	0.6	32	0.7	24	0.5	141	0.6	0.6	-0.06	0.202	-
Sexual violence	13	1.0	6	0.4	5	0.2	16	0.5	15	0.3	13	0.3	12	0.2	80	0.3	0.3	-0.84	0.078	-
Human trafficking[b]	0	0.0	0	0.0	0	0.0	1	0.0	2	0.0	1	0.0	1	0.0	5	0.0	0.0	-	-	-
Financial violence	5	0.4	3	0.2	6	0.2	9	0.3	5	0.1	5	0.1	6	0.1	39	0.2	0.2	-0.04	0.009	2.420
Neglect/ abandonment	6	0.4	12	0.7	17	0.7	7	0.2	17	0.3	9	0.2	8	0.2	76	0.3	0.3	-0.08	0.041	1.962
Child labor	2	0.1	0	0.0	0	0.0	0	0.0	2	0.0	1	0.0	0	0.0	5	0.0	0.0	-0.01	0.136	-
Legal intervention	0	0.0	2	0.1	4	0.2	4	0.1	2	0.0	3	0.1	3	0.1	18	0.1	0.1	0.00	0.797	-
Other violence	786	58.8	1181	72.4	1690	66.1	2566	75.8	3638	72.1	3321	74.1	3600	74.1	16782	72.0	72.4	-1.73	0.011	1.143
Aggression by threat	47	3.5	21	1.3	48	1.9	52	1.5	51	1.0	66	1.5	76	1.6	361	1.5	1.5	-0.20	0.116	-
Sexual harassment	1	0.1	0	0.0	3	0.1	2	0.1	1	0.0	4	0.1	2	0.0	13	0.1	0.1	-0.00	0.654	-
Rape	4	0.3	4	0.2	3	0.1	7	0.2	6	0.1	7	0.2	9	0.2	40	0.2	0.2	-0.01	0.450	-
Child pornography[b]	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	2	0.0	0.0	-	-	-
Sexual exploitation[b]	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0	0.0	-	-	-
Total notifications of self-inflicted violence	1336	100.0	1631	100.0	2557	100.0	3383	100.0	5048	100.0	4484	100.0	4860	100.0	23299	100.0	-	-	-	-

Source: Own elaboration.

[a] Data made available on 01/05/2022.

[b] Insufficient data to depict the trend.

Another detected incongruence was the recording of the aggressor's characteristics in notifications of self-inflicted violence, which is only applicable in cases of interpersonal violence. The variables involving two or more aggressors in the violence (Med = 4.3%), sex of the aggressor different from the victim (Med = 8.5%), relationship with spouse (Med = 2.3%), friends or acquaintances (Med = 1.5%), other type of relationship (Med = 1.0), ex-spouse and stranger (Med = 0.8%) showed moderate incongruence. There was, however, a drop in the period ($p \leq 0.028$) for the variables involving two or more aggressors in the violence, gender and some of the aggressor's relationships, such as father, mother, spouse, child, and friends/ acquaintances. In the case of the ex-spouse and ex-boyfriend aggressors, although also declining ($p < 0.050$), there is a possibility of positive autocorrelation ($d = 1.302$ and $d = 1.247$ respectively).

Regarding notifications of interpersonal violence, non-compliance for ignored and blank records was low for all types of violence (Med < 10%) (*table 4*). There was also a downward trend for most records ($p \leq 0.050$), except for sexual violence ($p = 0.074$). However, the lack of records remained stable in the period for all types of violence ($p \geq 0.110$).

Table 4. Number and percentage of interpersonal violence with ignored or blank records by year of notification. Rio de Janeiro, 2015 to 2021[a]

Type of violence	2015		2016		2017		2018		2019		2020		2021		Total					
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Med	β	p	d
Physical Violence																				
Ignored	45	0.5	54	0.5	56	0.5	64	0.5	52	0.3	43	0.3	58	0.4	372	0.4	0.5	-0.03	0.041	1.965
Blank	65	0.8	88	0.9	10	0.1	2	0.0	19	0.1	10	0.1	25	0.2	219	0.2	0.1	-0.12	0.110	-
Psychologic violence																				
Ignored	222	2.7	322	3.2	402	3.2	345	2.5	255	1.5	282	2.0	248	1.6	2076	2.3	2.5	-0.27	0.021	1.852
Blank	71	0.9	93	0.9	24	0.2	30	0.2	38	0.2	22	0.2	176	1.1	454	0.5	0.2	-0.01	0.886	-
Torture																				
Ignored	251	3.1	408	4.0	475	3.8	406	2.9	357	2.1	389	2.8	320	2.1	2606	2.9	2.9	-0.27	0.032	1.897
Blank	103	1.3	132	1.3	50	0.4	95	0.7	183	1.1	220	1.6	444	2.9	1227	1.4	1.3	0.24	0.211	-
Sexual violence																				
Ignored	217	2.6	343	3.4	446	3.6	381	2.7	315	1.9	361	2.6	275	1.8	2338	2.6	2.6	-0.21	0.074	-
Blank	101	1.2	123	1.2	46	0.4	89	0.6	181	1.1	219	1.6	437	2.8	1196	1.3	1.2	0.25	0.188	-
Human trafficking																				
Ignored	229	2.8	329	3.3	451	3.6	386	2.8	313	1.9	343	2.4	280	1.8	2331	2.6	2.8	-0.24	0.044	1.800
Blank	103	1.3	133	1.3	51	0.4	102	0.7	196	1.2	231	1.6	452	2.9	1268	1.4	1.3	0.24	0.199	-
Financial violence																				
Ignored	240	2.9	565	5.6	465	3.8	399	2.9	348	2.1	359	2.6	298	1.9	2674	2.9	2.8	-0.44	0.025	1.776
Blank	135	1.6	133	1.3	51	0.4	103	0.7	196	1.2	231	1.6	450	2.9	1299	1.4	1.3	0.20	0.309	-
Neglect																				
Ignored	231	2.8	341	3.4	449	3.6	385	2.8	317	1.9	348	2.5	288	1.9	2359	2.6	2.8	-0.23	0.049	1.842
Blank	140	1.7	133	1.3	51	0.4	103	0.7	193	1.2	224	1.6	409	2.6	1253	1.4	1.3	0.15	0.417	-
Child violence																				
Ignored	228	2.8	326	3.2	447	3.6	384	2.8	318	1.9	338	2.4	278	1.8	2319	2.6	2.8	-0.23	0.047	1.827
Blank	143	1.7	133	1.3	51	0.4	103	0.7	196	1.2	232	1.6	452	2.9	1310	1.4	1.3	0.19	0.352	-
Legal violence																				
Ignored	235	2.9	355	3.5	471	3.8	403	2.9	333	2.0	365	2.6	295	1.9	2457	2.7	2.9	-0.24	0.050	1.828
Blank	117	1.4	84	0.8	51	0.4	86	0.6	187	1.1	232	1.6	452	2.9	1209	1.3	1.1	0.25	0.213	-
Other violence																				
Ignored	379	4.6	786	7.8	799	6.5	588	4.2	503	3.0	532	3.8	404	2.6	3991	4.4	4.2	-0.68	0.033	1.773
Blank	106	1.3	88	0.9	42	0.3	101	0.7	191	1.2	233	1.7	447	2.9	1208	1.3	1.2	0.26	0.167	-

Source: Onw elaboration.

[a] Data made available on 01/05/2022.

In notifications with only psychological violence recorded, there was moderate incongruence for means of aggression by force, sharp object (Med = 0.9%), poisoning (Med = 0.5%) and firearm (Med = 1.1%), and high incongruence for other means of aggression (Med = 18.5%), which should have been restricted to physical violence (*table 5*). This type of error has increased over the period, but is still not statistically significant only for firearms (p = 0.151) and physical force (p = 0.166). Nevertheless, there is a possibility of negative

autocorrelation for the use of blunt objects (d = 2.770). Another means of aggression, though, showed a slight decline over the period (β = -0.99; p = 0.022).

Table 5. Number and percentage of the means of aggression in the psychological violence per year of notification. Rio de Janeiro, 2015 to 2021[a]

Means of agression	2015		2016		2017		2018		2019		2020		2021		Total					
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Med	β	p	d
Force	5	2.3	10	3.4	7	1.9	5	1.5	7	1.7	10	3.8	21	7.5	65	3.0	2.3	0.74	0.166	-
Hanging	0	0.0	0	0.0	2	0.5	0	0.0	1	0.2	2	0.8	4	1.4	9	0.4	0.2	0.20	0.036	1.631
Blunt object	0	0.0	0	0.0	1	0.3	3	0.9	0	0.0	3	1.1	2	0.7	9	0.4	0.3	0.16	0.005	2.770
Sharp object	2	0.9	0	0.0	1	0.3	5	1.5	2	0.5	5	1.9	4	1.4	19	0.9	0.9	0.25	0.009	2.394
Substance/hot object	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	3	1.1	1	0.4	5	0.2	0.0	0.13	0.039	2.373
Poisoning	1	0.5	0	0.0	0	0.0	0	0.0	5	1.2	4	1.5	6	2.1	16	0.7	0.5	0.31	0.044	1.516
Firearm	1	0.5	7	2.4	4	1.1	6	1.8	4	1.0	1	0.4	4	1.4	27	1.2	1.1	0.13	0.151	-
Other means	47	21.8	66	22.8	63	16.7	63	18.5	84	20.0	45	17.2	42	14.9	410	18.8	18.5	-0.99	0.023	2.321
Total notifications psychological violence only	216	100.0	290	100.0	378	100.0	340	100.0	419	100.0	262	100.0	281	100.0	2186	100.0	-	-	-	-

Fonte: elaboração própria.

[a] Dados disponibilizados em 05/01/2022.

Discussion

This study identified several inconsistencies in the violence notifications in the state of Rio de Janeiro, which can compromise the understanding of the overview of this type of injury, which is essential to support public policies. Some inconsistencies, however, could be reduced if restrictions were made on the entry of inappropriate data, as recommended in the instructions for filling out the notification[14].

Among the inconsistencies, there was a high percentage (22.5%) of records that did not classify the type of violence, i.e. whether it was self-inflicted or interpersonal. This may indicate a real lack of knowledge by the professional in the context of the interview, especially in cases of emergency care or fear on the part of the victim. One suggestion to improve the understanding would be to create a mandatory field on the notification form to record the reason for not knowing the type of violence. However, there was a reduction in this type of inconsistency over the analyzed period, reaching 7.5% in 2021. Previous analysis of state-level data[11] may have improved the quality of the information, although it is still incipient. In Brazil, the average proportion of this type of inconsistency ranged from 12.3% in 2011 to 10.3% in 2014[17].

Another serious inconsistency was the incompatibility in the registry of sex and gender identity, which accounted for 19.8% of notifications of violence against transgender people in the assessed period, particularly for transgender women (16.8%). The trend of this inconsistency remained high and stable in the period (p = 0.497). A study with administrators in the municipality of Cuité, state of Paraíba, revealed a lack of knowledge about gender expression and limited understanding of affective-sexual orientation as well as blaming the

LGBTQIA+ community for situations of violence and restricted access to health services[18]. Although these concepts are described in the instructions on how to fill out the notification form[14], the persistence of classification errors suggests that professionals need to be trained to understand them better.

To reduce these mistakes, Girianelli and his collaborators[11] proposed not leaving the field 'gender identity' active for typing, for the 'transvestite' and 'transsexual woman' categories when notifying the biological sex of a female victim and in the 'transsexual man' category for a male victim. In addition, the possibility of registering an unknown sex can be confusing for professionals because in the field 'sex', the manual instructions do not mention whether it is biological sex or a civil registration[14].

In contrast, the availability of the 'ignored' gender identity registry could also jeopardize the classification, given that there is already a 'not applicable' category for cisgender people and those under 10 years of age. To improve the reporting form, we could add the option 'cisgender', people who recognize themselves with the gender they were assigned at birth, which is not yet available on the notification forms, as it only considers transvestites and transgender people as having gender identification. Moreover, the asexual and intersex categories could also be included on the form, thereby including all the other people who make up the LGBTQIA+ group, making this instrument more equitable as well as providing information on the violence suffered by those people who are currently rendered invisible.

This type of error is due to the naturalization of the cisgender and binary model of the sexes in the health system, which occurs because they are outside the norm, and they need to be formally identified[19]. Since heteronormativity is a norm, a social imposition for everyone to be heterosexual, determining that people behave and have attitudes according to their biological sex and with the predetermined roles of each gender[20].

Another inconsistency was the record of referrals of adult to institutions for children, adolescents or older people. The percentage was low and may only represent a typing error in the system. However, it showed an increasing trend over the period ($\beta = 0.05$; $p = 0.007$). This situation could easily be avoided by inactivating the typing of unrelated fields. The notification for each situation should follow a specific path, i.e., according to the case diagnosed by the health professional. The instructions for filling out the notification[14] contains guidance for services/institutions according to their specific characteristics, an error that may also indicate a lack of understanding of this item.

A study carried out in Recife, the capital of the state of Pernambuco, which analyzed notifications from 2009 to 2012, found a high percentage of incompleteness in the forwarding fields, making it difficult to identify whether there was no record or whether, in fact, they were not forwarded[21]. Also, the professionals' lack of knowledge about the victim support network, disbelief in its efficiency or fear of committing themselves may contribute to victims being referred inappropriately.

Regarding the characteristics of the victims, the percentage of ignored records was high for education, occupation, marital status, and disability, but all showed a slight downward trend over the period. The study carried out in Paraná, especially in relation to schooling also identified a high percentage for this type of record (23.5%), while for disability, the percentage of ignored records was low (5.8%)[22]. For race or skin color, non-compliance was moderate and decreased slightly over the period ($\beta = -0.43$; $p = 0.016$).

Recent studies[23,24] have also highlighted the lack of data on some variables in the health information systems, particularly race/skin color and schooling, making it impossible to understand better the population's reality. It

is worth noting that in 2017 it became compulsory to fill out the race/skin color field on the health information system forms[25], but it remains an essential field in the notification form instructions requiring an update.

As for notifications of self-inflicted violence, the recommendation is to register 'other' in the type of violence and specify whether they are 'self-harm' or 'attempted suicide[14]. However, there was incorrect classification as some types of interpersonal violence were recorded mainly as physical violence. Such mistakes, though, had a downward trend over the period (β = -2.58; p = 0.011). A previous analysis of state data[11] identified stability in this type of mistakes until 2016 (p = 0.291). Furthermore, a study conducted in the state of Paraná found that, although the variable 'type of violence' of the 'other' field had been reported as a suicide attempt, it was found that it had not been filled out properly as the descriptions in the 'additional observations' field displayed information on suicide attempt that had not been filled out in the aforementioned section[22].

In notifications with records of only psychological violence, there was an inconsistency in the registration of the means of aggression which are related to physical violence. This type of error has increased in the period for most types of aggression ($p < 0.05$), a situation that had already been pointed out in a study carried out using data from the state of Rio de Janeiro until 2016[11]. A study which assessed notifications in Recife found an average of only 1% of inconsistencies between the evaluated fields, with a higher proportion between the psychological violence and the means of aggression fields (10.1%)[21].

The high percentage of the identified inconsistencies (non-compliance and incongruence) compromises the analysis of the information, making it impossible to get a more reliable picture of the violences attended and reported in the health services. Continuous training is extremely important and necessary to improve the performance of health professionals in filling out this powerful instrument which is rich in epidemiological information. It also provides knowledge of terminologies for a better understanding of the different dimensions of gender and sexual diversity, helping to break down conservatism and being able to reduce perceived problems and overcome prejudice and discrimination.

There is a lot to be done to improve the surveillance of violence and to refine the instrument to reduce the misunderstandings that health professionals make due to the lack of clarity of the notification forms. It is also important to include other people according to their gender identity and sexual orientation, breaking away from the cis-heteronormative and binary model of the sexes in all forms, medical files, and the health information system of the Unified Health System (SUS), in line with the principle of equity. Besides, improving the quality of notifications and including other LGBTQIA+ groups in the violence notification form would also contribute to expanding epidemiological studies which remains scarce for this population[25].

Final considerations

In this study, it was found that inconsistencies in filling out notification forms of violence make it difficult to get a picture close to reality. Among the identified inconsistencies, stand out the high percentage of ignored records for important variables such as race/skin color and schooling – including the inability to identify whether the violence perpetrated was interpersonal or self-inflicted – and the lack of understanding of the specificities of the LGBTQIA+ group revealed in the incompatibility of registering sex and gender identity. Notification is an instrument that provides important parameters for local diagnosis and the development of appropriate public policies. Therefore, its improvement is imperative.

It identified the need to train health professionals, transform essential registration fields

into mandatory ones and make it impossible to type incompatible fields to avoid filling them out wrongly. From this perspective, the training of health professionals goes beyond correctly filling out the notification fields to qualify the information. It is essential to encourage professionals to reflect on stigmas and prejudices, so they can respect the population with non-discriminatory attendance, to avoid barriers to access integral health care.

This study also emphasizes that notification is necessary to feed the database with complete information and, based on the epidemiological profile of violence, to monitor and evaluate its occurrence, disseminate information, and improve prevention measures and integral care inclusive and free of inequalities. In this way, it will be possible to devise the best responses to deal with it as a strategy for promoting health, particularly for specific groups.

Collaborators

Girianelli VR (0000-0002-8690-9893)* contributed to the elaboration with: data analysis and interpretation, critical review of the content, and approval of the manuscript's final version. Cordeiro GTL (0000-0002-7241-948X)* contributed to the elaboration with: conception, planning, data analysis and interpretation, writing of the first version, and approval of the manuscript's final version. ■

References

1. Brasil. Ministério da Saúde. Portaria nº 104, de 25 de janeiro de 2011. Define as terminologias adotadas em legislação nacional, conforme disposto no Regulamento Sanitário Internacional 2005 (RSI 2005), a relação de doenças, agravos e eventos em saúde pública de notificação compulsória em todo o território nacional e estabelecer fluxo, critérios, responsabilidades e atribuições aos profissionais e serviços de saúde. Diário Oficial da União. 26 Jan 2011. [acesso em 2022 out 28]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt0104_25_01_2011.html.

2. Brasil. Lei nº 8.069, de 13 de julho de 1990. Dispõe sobre o Estatuto da Criança e do Adolescente e dá outras providências. Diário Oficial da União. 16 Jul 1990. [acesso em 2022 out 27]. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/l8069.htm.

3. Brasil. Lei nº 10.778, de 24 de novembro de 2003. Estabelece a notificação compulsória, no território nacional, do caso de violência contra a mulher que for atendida em serviços de saúde públicos ou privados. Diário Oficial da União. 25 Nov 2003. [acesso em 2022 out 29]. Disponível em: http://www.planalto.gov.br/ccivil_03/LEIS/2003/L10.778.htm.

4. Brasil. Lei nº 10.741, de 1 de outubro de 2003. Dispõe sobre o Estatuto da Pessoa Idosa e dá outras providências. Diário Oficial da União. 3 Out 2003. [acesso em 2022 out 28]. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/2003/l10.741.htm.

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5. Brasil. Ministério da Saúde, Secretaria de Vigilância em Saúde, Secretaria de Atenção à Saúde. Política Nacional de Promoção da Saúde (PNPS): revisão da Portaria nº 687, de 30 de março de 2006. Brasília, DF: Ministério da Saúde; 2015 [acesso em 2022 out 28]. 36 p. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/pnps_revisao_portaria_687.pdf.

6. Brasil. Ministério da Saúde. Portaria nº 2.836, de 1 de dezembro de 2011. Institui, no âmbito do Sistema Único de Saúde (SUS), a Política Nacional de Saúde Integral de Lésbicas, Gays, Bissexuais, Travestis e Transexuais (Política Nacional de Saúde Integral LGBT). Diário Oficial da União. 2 Dez 2011. [acesso em 2021 out 15]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt2836_01_12_2011.html.

7. Abers RN, Silva MK, Tatagiba L. Movimentos sociais e políticas públicas: repensando atores e oportunidades políticas. Lua Nova. 2018 [acesso em 2022 out 27]; 105:15-46. Disponível em: https://www.scielo.br/j/ln/a/7Z3vLtvbrTykKtSfx39QSXs/abstract/?lang=pt.

8. 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, DF: Ministério da Saúde; 2010 [acesso em 2022 out 28]. 104 p. (Série F. Comunicação e Educação em Saúde). Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/linha_cuidado_criancas_familias_violencias.pdf.

9. Brasil. Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de Vigilância Epidemiológica. Guia de vigilância epidemiológica. 7. ed. Brasília, DF: Ministério da Saúde; 2009 [acesso em 2022 out 28]. 816 p. (Série A. Normas e Manuais Técnicos). Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/guia_vigilancia_epidemiologica_7ed.pdf.

10. Galleguillos TGB, Neves H, Lira MMT, et al. Aspectos da questão étnico-racial e saúde no Município de São Paulo. Boletim CEInfo Análise. 2015 [acesso em 2021 nov 15]; 10(12). 60 p. Disponível em: https://www.prefeitura.sp.gov.br/cidade/secretarias/upload/saude/arquivos/publicacoes/Boletim_CEInfo_Analise_12.pdf.

11. Girianelli VR, Ferreira AP, Vianna MB, et al. Qualidade das notificações de violências interpessoal e autoprovocada no Estado do Rio de Janeiro, Brasil, 2009-2016. Cad. Saúde Colet. 2018 [acesso em 2022 out 28]; 26(3):318-326. Disponível em: https://www.scielo.br/j/cadsc/a/kjcjz3Cy9mcxTF3zsh5CYfK/abstract/?lang=pt.

12. Correia LOS, Padilha BM, Vasconcelos SML. Métodos para avaliar a completitude dos dados dos sistemas de informação em saúde do Brasil: uma revisão sistemática. Ciênc. saúde coletiva. 2014; 19(11):4467-4478.

13. Klein CH, Block KV. Estudos Secionais. In: Medronho RA, Block KV, Luiz RR, et al. Epidemiologia. 2. ed. São Paulo: Editora Atheneu; 2009. p. 193-219.

14. Brasil. Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de Vigilância de Doenças e Agravos Não Transmissíveis e Promoção da Saúde. Viva: instrutivo de notificação de violência interpessoal e autoprovocada. 2. ed. Brasília, DF: Ministério da Saúde; 2016 [acesso em 2022 out 28]. 94 p. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/viva_instrutivo_violencia_interpessoal_autoprovocada_2ed.pdf.

15. Antunes JLF, Cardoso MRA. Uso da análise de séries temporais em estudos epidemiológicos. Epidemiol. Serv. Saúde. 2015 [acesso em 2022 out 27]; 24(3):565-576. Disponível em: https://www.scielo.br/j/ress/a/zzG7bfRbP7xSmqgWX7FfGZL/abstract/?lang=pt.

16. Gujarati DN, Porter DC. Econometria Básica. Tradução Denise Durante; Mônica Rosemberg; Maria Lúcia G. L. Rosa. 5. ed. São Paulo: Amgh Editora; 2011.

17. Sousa CMS, Mascarenhas MDM, Lima PVC, et al. Incompletude do preenchimento das notificações compulsórias de violência-Brasil, 2011-2014. Cad. Saúde Colet. 2020 [acesso em 2022 out 28]; 28(esp1):477-487. Disponível em: https://www.scielo.br/j/cadsc/a/VXDRVF4cfrFKwk7rLNS3YTt/?format=pdf&lang=pt.

18. Gomes SM, Sousa LMP, Vasconcelos TM, et al. O SUS fora do armário: concepções de gestores municipais de saúde sobre a população LGBT. Saúde Soc. 2018 [acesso em 2022 out 28]; 27(4):1120-1133. Disponível em: https://www.scielosp.org/pdf/sausoc/2018.v27n4/1120-1133/pt.

19. Gomes R, Murta D, Fachini R, et al. Gênero, direitos sexuais e suas implicações na saúde. Ciênc. saúde coletiva. 2018 [acesso em 2022 out 28]; 23(6):1997-2006. Disponível em: https://www.scielosp.org/article/csc/2018.v23n6/1997-2006/pt/.

20. Petry AR, Meyer DE. Transexualidade e heteronormatividade: algumas questões para a pesquisa. Textos Contextos (Porto Alegre). 2011 [acesso em 2022 out 28]; 10(1):193-198. Disponível em: https://revistaseletronicas.pucrs.br/index.php/fass/article/view/7375.

21. Abath MB, Lima MLLT, Lima OS, et al. Avaliação da completitude, da consistência e da duplicidade de registros de violências do Sinan em Recife, Pernambuco, 2009-2012. Epidemiol. Serv. Saúde. 2014 [acesso em 2022 out 28]; 23(1):131-142. Disponível em: https://www.scielo.br/j/ress/a/fyDMwnQ7LvkKdrd7MqhzfNq/abstract/?lang=pt.

22. Santos ROD, Polidoro M, Wanzinack C, et al. Caracterização das notificações de violência autoprovocada em lésbicas, gays, bissexuais, travestis e transexuais (LGBT) do Estado do Paraná de 2015 a 2017. Cad. Gên. Tecnol. 2022; 15(45):26-47.

23. Cerqueira D, Ferreira H, Bueno S, coordenadores. Atlas da Violência 2021. São Paulo: IPEA; 2021. [acesso em 2021 ago 6]. Disponível em: https://www.ipea.gov.br/atlasviolencia/arquivos/artigos/1375-atlasdaviolencia2021completo.pdf.

24. Oliveira JMD, Mott L, organizadores. Mortes violentas de LGBT+ no Brasil: Relatório 2021. Salvador: Editora Grupo Gay da Bahia; 2022 [acesso em 2022 out 28]. (Relatório do Grupo Gay da Bahia). Disponível em: https://grupogaydabahia.files.wordpress.com/2022/03/mortes-violentas-de-lgbt-2021-versao-final.pdf.

25. Brasil. Ministério da Saúde. Portaria nº 344, de 1º de fevereiro de 2017. Dispõe sobre o preenchimento do quesito raça/cor nos formulários dos sistemas de informação em saúde. Diário Oficial da União. 2 Fev 2017. [acesso em 2022 out 28]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt0344_01_02_2017.html.

26. Bezerra MVR, Moreno CA, Prado NMBL, et al. Política de saúde LGBT e sua invisibilidade nas publicações em saúde coletiva. Saúde debate. 2019; 43(esp8):305-323.

Received on 10/16/2023
Approved on 12/06/2023
Conflict of interests: non-existent
Financial support: non-existent

Responsible editor: Henrique Rabello de Carvalho