

The epidemiological patterns of childhood sexual abuse and bullying in 204 countries and territories during past decades

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Abstract

Background

This study presents an image of childhood sexual abuse and bullying (CSAB) longitudinal trends in summary exposure rates from 1990 to 2019 in 204 countries and territories.

Methods

The CSAB summary exposure rates in 1000000 people were extracted from the Institute for Health Metrics and Evaluation and analyzed using latent growth approaches.

Results

Our results showed, globally, at the beginning of the study, the summary exposure rate was higher in boys and was increased in both genders over time (increasing rate of 16.6 in boys and 17.8 in girls, $P < .001$). Also, during past decades, the CSAB summary exposure rate for boys and girls had a significant increasing trend in both developed and low developed countries ($p < 0.001$). The increasing rate in low developed countries was more than in developed ones, in boys and girls. The CSAB rates among boys in Chile, Spain, and Sweden, and girls in Chile, Lithuania, Netherlands had the sharpest decreasing rate among world countries (decreasing rate of 19.5 and 13.9 per 1000000 persons, respectively, $p < .001$). The longitudinal trend of CSAB rates in other countries has been mostly increasing in boys and girls.

Conclusion

This study showcases the trend of CSAB rates were heterogeneous among countries and have not decreased during past decades and in most countries. In both developing and developed countries, special attention from relevant policymakers is required, and implementation of national survey, facilitating reporting, and knowledge of the CSAB at a population level are recommended.

Introduction

Violence, defined as the abuse of power in unequal relationships, can assume many manifestations across nations, cultures, and eras, depending on what is considered acceptable in the social background. Violence expresses itself in various ways, including emotional, physical, and sexual. Sexual violence can occur in adults and children (under 18) (1). Globally, child sexual abuse occurs at a rate of 15–20% for females and 8% for men (2). This incident significantly influences the victims' quality of life and mental development in a short-term and long-term manner (3). Depression, obsessive-compulsive disorders, phobias, panic attacks, sexual dysfunction, post-traumatic stress disorder, and suicidal thoughts are all prominent mental symptoms that have been linked to childhood sexual abuse (4).

According to the UNICEF report, the economic costs of physical, psychological, and sexual abuse against children might reach \$7 trillion worldwide (5). Another UNICEF study estimates that almost one in every ten females under the age of twenty (120 million) has been compelled to have intercourse or engage in other sexual actions (6). Another issue is that the preponderance of data is acquired from reported instances, yet most events go unreported. According to figures compiled by The Rape, Abuse, and Incest National Network, around two-thirds of sexual assaults go unreported (7). It is critical to analyze several main research that documents the rate of exposure to violence and sexual violence in children. According to a 2016 meta-analysis, at least 54% of children aged 2–14 and 76% of children aged 15–17 had been exposed to violence. According to the same study, children in Asia, Africa, and North America are most vulnerable to this danger (8).

Another research showed that 37.38 percent of kids in the United States had been the victim of physical assault, and 9.3 percent were harmed as a result of the encounter (9). According to a 2009 research, 7.9 percent of males and 19.7 percent of women had experienced sexual assault prior to reaching legal age (10). According to a 2013 survey from 24 nations, nine girls and three boys out of 100 were assaulted in this manner (11).

Our earlier study examined the global prevalence of sexual abuse (not specifically directed at children) and its link to the human development index (HDI). The results demonstrated a high prevalence of sexual assault (2.9 percent for women in countries with a lower HDI), which was more prevalent among women and was adversely connected to the human development index (12). Due to a lack of comprehensive data on global trends and patterns of childhood sexual violence, this study aims to examine the global trend of childhood sexual abuse and bullying (CSAB) using data from the global burden of disease (GBD), taking into account all countries of the world patterns and possible confounding factors. Low-developed and developed countries are explored in this regard.

Method

This study extracts the summary exposure value of the CSAB rate from the GBD database, related to the Institute for Health Metrics and Evaluation (IHME) (13). The CSAB rates per 1000000 people were compiled in 204 countries and territories from 1990 to 2019. The rates were extracted for girls and boys in all countries. We divide countries into developed and low developed groups according to their HDI. Countries with $HDI \geq 0.7$ were considered developed groups, and countries with $HDI < 0.7$ entered into low developed groups (14). The trend of CSAB was determined in these groups. In addition, the trend of CSAB was explored in countries, placed in Asia, Australia, Africa, Europe, south and north American regions, separately. The IHME designs these six regions. Finally, the countries were explored in terms of CSAB and clustered into subgroup. Countries with similar trends in terms of summary exposure rate of CSAB were entered in the same class. All methods were carried out in accordance with the Declaration of Helsinki. The IHME protect personally identifiable information through a data anonymization process that retains the data but keeps the source anonymous.

Statistical methods

The CSAB rate was described using bar charts. The Latent Growth Model (LGM) was applied to assess the trend of CSAB rate during the time. The response variable in this model is the CSAB rates which are longitudinally measured during 1990–2019 (at five-year intervals). The regression coefficients in this model show the change of CSAB rates over time. Also, for clustering of countries based on similarity of CSAB change during time, the Latent Growth Mixture Model (LGMM) was used. Again, the longitudinal CSAB rates are considered the response variable, and countries were clustered into subgroups. Countries in each group had a similar trend of CSAB rates during past years. Statistical modeling was performed using Mplus version 6.12.

Results

The means of CSAB summary exposure value rate over the study period for both sex is reported in Fig. 1. The bar charts show that the summary exposure value rate in boys is more than girls in all years. Also, the means rates of CSAB in low developed and developed countries have been presented during the time in Fig. 2. The bar charts show that the CSAB summary exposure value rate increases over time and the rates are always more in low developed countries than developed ones.

The CSAB summary exposure rate trend, assessed by LGM, has been presented in Table 1. The estimated overall mean of the initial CSAB summary exposure rate at 1990, presented by intercept coefficients, shows that the most rate is related to the male in low developed countries with the rate of 86.37 in 1000000 persons. The overall trend of summary exposure rate during the time has been estimated as slope coefficients. The slope sign determines the incremental (positive slope) and

decremental (negative slope) trend over the period. Overall, the slope coefficients in Table 1 show that the significant increasing trend over time has been observed in the CSAB summary exposure rate during past decades for boys and girls in both developed and low developed countries ($p < 0.001$). The increasing rate in low developed countries were more than in developed ones, in both boys and girls.

Table 1

The LGM results for trend analysis of childhood sexual abuse and bullying summary exposure rates (per 1,000,000 persons) in low developed and developed countries.

		Intercept [†]	Slope [‡]	p-value
Female	low developed countries with HDI < 0.7	73.91	2.62	< .001
	Developed countries with HDI ≥ 0.7	65.92	1.35	< .001
Boys	low developed countries with HDI < 0.7	86.37	2.22	< .001
	Developed countries with HDI ≥ 0.7	72.06	1.32	< .001
The LGM results are related to the CSAB summary exposure rate, repeated every five years, from 1990 to 2019.				
†The intercepts represent the estimated overall mean level of the initial childhood sexual abuse and bullying rate.				
‡ The slopes estimated the average rate of change in childhood sexual abuse and bullying rate during the time.				

HDI: human development index

Subsequently, Table 2 shows the trend analysis of CSAB summary exposure rate in different continents, separately for boys and girls. Based on the results in Table 2, at the beginning of the study period, boys in Asia and South America had the highest summary exposure rate of CSAB (rate of 968.4 and 853.8 per 1000000, respectively). Moreover, the lowest summary exposure of SV belonged to boys in North America and Asian girls (rate of 623.8 and 459.4 per 1000000, respectively). According to the slope coefficients, the CSAB summary exposure rate has increased in both genders and across all regions during past decades. The most increasing rate of CSAB was observed among African populations in both boys and girls (increasing rate of 26.0 and 29.1 per 1000000 persons, respectively, $p < .001$). North American girls (with an increasing rate of 18.1) and Asian girls (with an increasing rate of 17.9) are next in the rank. Boys in Europe and also girls in South America had the lowest increasing rates of CSAB (increasing rate of 5.5 per 1000000 persons, $p < .001$). Globally, at the beginning of the study, the summary exposure rate was higher in boys and was increased in both genders over time (increasing rate of 16.6 in boys and 17.8 in girls, $P < .001$).

Finally, using LGMM, the worldwide countries were categorized according to the trend of CSAB rate changes, and Table 3 presents the results. In this way, the intercept and slope of LGMM are interpreted in each category. For example, the first category includes Chile, Spain, and Sweden, which had the sharpest decreasing rate among world countries in terms of CSAB among boys (decreasing rate of 19.5 per 1000000 persons, $p < .001$). In addition, the category that includes Bhutan, Botswana, Canada, Egypt, Estonia, Ghana, Greenland, Nicaragua, Pakistan, Turkey, and Zambia, showed the most increasing rates of CSAB among boys, compared with other countries, with the rate of 55.8 in 1000000 boys ($p < .001$). The interpretation of coefficients in other clusters is the same. The CSAB against girls in Chile, Lithuania, and the Netherlands, had a decreasing rate among world countries (decreasing rate of 13.9 per 1000000 girls, $p = .001$). Among countries, Bangladesh, Bhutan, Canada, Egypt, Ghana, Greenland, Nepal, Nicaragua, Pakistan, Sweden, Turkey, United States of America, Zambia showed the sharpest increasing rates of CSAB against girls (with an increasing rate of 68.8 in 1000000 girls ($p < .001$)). In general, the observed trend in terms of CSAB rate in both boys and girls has been mostly increasing in other countries.

Countries with similar CSAB trends rates, based on LGMM results, are shown with similar colors on the maps in Fig. 3.

Table 2

Childhood sexual abuse and bullying summary exposure rates (per 1,000,000 persons) as mean (SD) and estimates from the LGM by the regions for trend analysis.

Region	Gender	Years				LGM estimates		
		1990	2000	2010	2019	Intercept	Slope	p-value
Asia	Boys	717.2(262.6)	767.9(276.4)	781.1(293.7)	798.7(302.4)	727.4	15.6	< .001
	Girls	459.4(249.4)	485.0(256.8)	519.2(279.9)	544.2(304.9)	462.7	17.9	< .001
Africa	Boys	968.1(199.3)	1011.9(201.1)	1062.9(211.1)	1099.8(218.0)	980.4	26.0	< .001
	Girls	821.6(328.6)	864.6(336.3)	922.8(341.1)	971.2(350.0)	829.9	29.1	< .001
Europe	Boys	736.4(146.3)	768.6(156.1)	785.5(163.3)	794.3(164.8)	768.2	5.5	.002
	Girls	781.4(268.8)	801.0(262.0)	818.8(262.9)	828.3(256.7)	800.5	6.0	< .001
North	Boys	623.8(145.0)	652.3(161.7)	682.7(182.1)	694.6(190.2)	629.8	15.3	< .001
America	Girls	666.4(205.9)	698.0(229.9)	732.7(260.5)	752.1(270.3)	673.7	18.1	< .001
South	Boys	656.1(130.8)	682.7(154.0)	692.6(145.6)	688.8(119.9)	670.8	7.2	.055
America	Girls	853.8(263.8)	858.0(269.2)	866.9(264.7)	890.0(263.9)	848.6	5.5	.095
Australia & Oceania	Boys	718.1(126.8)	728.1(130.4)	750.5(136.3)	768.4(146.9)	711.8	11.3	< .001
	Girls	748.3(188.3)	754.2(204.8)	776.6(212.7)	808.0(231.1)	734.9	13.5	< .001
Global	Boys	733.3(228.6)	805.4(240.3)	837.3(256.2)	856.4(267.2)	784.9	16.6	< .001
	Girls	700.5(304.8)	727.3(311.5)	762.2(322.9)	789.9(334.8)	705.7	17.8	< .001

Table 3

The results of GMM for clustering countries based on childhood sexual abuse and bullying summary exposure rates (per 1,000,000 persons)

Countries with a similar trend of boys' childhood sexual abuse	Coefficients of GMM		
	Intercept	Slope	p-value
Chile, Spain, Sweden	817.2	-19.5	< .001
Afghanistan, Algeria, Belgium, Benin, Brunei, Cameroon, Cape Verde, Central African, Chad, Colombia, Comoros, Costa Rica, Ecuador, Finland, France, Gabon, Gambia, Germany, Greece, Guatemala, Guinea-Biss, Guyana, India, Indonesia, Ireland, Israel, Jordan, Kenya, Kuwait, Laos, Lesotho, Liberia, Lithuania, Luxembourg, Malawi, Maldives, Mongolia, Nepal, Nigeria, Northern Ma, Norway, Philippines, Poland, Qatar, Romania, Rwanda, Sao Tome an, Senegal, Sierra Leon, Slovakia, South Afric, Sri Lanka. Christo, St. Lucia, St. Vincent, Tanzania, Thailand, Timor-Leste, Togo, Tonga, United Arab, Vanuatu, Venezuela, Yemen, Zimbabwe.	866.4	19.3	< .001
Angola, Austria, Bangladesh, Burkina Faso, Burundi, Djibouti, Equatorial, Eritrea, Ethiopia, Guinea, Iran, Latvia, Madagascar, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Oman, Russia, Saudi Arabi, Seychelles, Somalia, Switzerland, Uganda, United Stat	874.0	32.7	< .001
Bhutan, Botswana, Canada, Egypt, Estonia, Ghana, Greenland, Nicaragua, Pakistan, Turkey, Zambia	948.6	55.8	< .001
Other countries	648.8	5.5	< .001
Countries with a similar trend of girls' childhood sexual abuse	Intercept	Slope	p-value
Chile, Lithuania, Netherlands	1351.4	-13.9	.001
Bangladesh, Bhutan, Canada, Egypt, Ghana, Greenland, Nepal, Nicaragua, Pakistan, Sweden, Turkey, United States of America, Zambia	834.5	68.8	< .001
Algeria, Burundi, Comoros, Djibouti, Ethiopia, Madagascar, Mozambique, Oman, Qatar, South Africa	485.3	38.5	< .001
Angola, Austria, Benin, Botswana, Burkina Faso, CÃ´te d'Ivoire, Cabo Verde, Cameroon, Chad, Costa Rica, Democratic Republic of the Congo, Ecuador, Equatorial Guinea, Estonia, Gabon, Gambia, Germany, Guinea, Guinea-Bissau, India, Kenya, Latvia, Liberia, Mali, Mauritania, Namibia, New Zealand, Niger, Nigeria, Norway, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Switzerland, Togo, Uganda, Vanuatu, Zimbabwe	1030.9	27.9	< .001
Other countries	581.9	8.7	< .001

Discussion

Childhood sexual abuse and bullying are serious problems societies now encounter. It is established that it has a wide range of long-term psychiatric, psychosocial, and physical health outcomes (5). According to the literature review we conducted, studies on CSAB prevalence rates are primarily descriptive or cross-sectional in sub-population, and longitudinal trends are not well documented. This study assessed the trends of CSAB prevalence rates across 204 countries and territories in 25 years from 1990 to 2019.

Our results demonstrate that an overall significant increase in CSAB prevalence over time has been observed during the past decades in developed and low developed countries. Although, CSAB generally has been more accruing and has a more increasing rate in low developed countries versus developed ones in both genders. Other research also supports our results that the prevalence rate in low developed countries is more than in developed ones. There are multiple factors involved, including the socioeconomic state in these populations, instabilities resulting from armed conflicts, uncontrolled natural hazards and widespread political violence (15). These results might contrast with the fact that there have been

endeavors to educate people, families, and even the children themselves in recent decades, so we expected a decline in this era, but we saw otherwise (4). This might be because of the disclosure rate that is increasing as a result of these efforts. Furthermore, as D.Russell et al. suggest, these prevention strategies, although valuable, might not be as effective because they are mostly school-based, and a significant gap in knowledge of the CSAB is visible at a population level(16).

In our data, the prevalence of CSAB in boys was more than in girls, which is in line with the study published by Biswas et al. (17) This finding might be for various reasons, first that there is less protection against CSAB happening to boys since people expect it less, and secondly again it might be due to the disclosure rate that is more in boys versus girls because families often do not report the event happening to their girls because of social stigma. Furthermore, another reason is that boys also undergo sexual violence in sports and exercise (18). As other analyses also show, this result demonstrates the importance of engaging boys and men in the fight against CSAB because other than these numbers, they have various roles in this problem they undergo this tragedy, are more likely to be the perpetrators, and they are the viable champions of change (16). In line with our study, being a girl is associated with an increase in sexual violence (15). According to our results, African girls and boys had the most rates and increasing trend among regions. This may be due to the wars, unstable living situations, and increasing poverty in those regions (15).

Finally, we determined which countries had a similar trend of CSAB during past decades. Our finding showed that boys and girls in Chile, boys in Sweden and Spain, and girls in the Netherlands and Lithuania were the only cases with decreasing rates. Due to shame and guilt and lack of support in Chile, both girls and boys have trouble revealing the CSAB. This is especially true for boys in macho cultures (19). We found that Sweden has a published National Action Plan for Safeguarding Children from Sexual Exploitation. Its effectiveness shows the necessities of a plan being considered by every country (20). Shila et al. also, in their research, said that there had been a decrease in CSV prevalence in some groups in the Netherlands, but there is still much work needed to be done (21). As some research shows, there is high child abuse prevalence in Lithuania, and they have mentioned some reasons too. However, it is not in contrast to our results because in the period of our data Lithuania went through the first decade of their Independence 1990–2001, and the regime change, as Kabašinskaitė et al. say, was a transient reason that happened, and after a while now the situation is progressing (22, 23).

The majority of countries had an increasing trend of CSAB, which is essential and needs more epidemiological studies. For example, Bhutan, Botswana, Canada, Egypt, Estonia, Ghana, Greenland, Nicaragua, Pakistan, Turkey, and Zambia have the most increasing male childhood sexual abuse rates. Also, Bangladesh, Bhutan, Canada, Egypt, Ghana, Greenland, Nepal, Nicaragua, Pakistan, Sweden, Turkey, the United States of America, and Zambia have the sharpest increasing female childhood sexual abuse rates. Most of these countries are undergoing all kinds of wars like civil and political ones (15). These countries do not share significant similarities. They are from different continents, and we can see different cultures and religions from Buddhism and Islam to Christianity; they are developing, developed, and underdeveloped countries in this list, emphasizing how the factors are associated with CSAB can be different. It seems that the prevention programs and education cause children can more easily express sexual violence. School enrollment, for example, is a factor decreasing the CSV, which can be a reason for more disclosure and an increasing trend over the previous decades (15, 24).

This study embodies some limitations. The lack of data for CVAB prevalence rate in some countries at a specific time makes GBD report the estimated rates. Also, it should be noted that the definition of CSAB may be different in various populations, and its disclosure is not the same in all countries. We found this study essential to help obtain future targeted programming and prevention on a more holistic and population-based level.

Conclusion

This study showcases an image of CSAB exposure rates during 1990–2019 among 204 countries worldwide. Based on our findings, the trend of CSAB rates has not dropped remarkably in most countries. In both developing and developed

countries, implementation of national survey, facilitating reporting, knowledge of the CSAB at a population level are recommended.

Declarations

Author Contributions: Conceptualization, H.A. and N.B.; methodology, H.A. M.G and N.B.; software, N.B., H.A.; formal analysis, N.B. and H.A.; investigation, M.S., P.F. and Y.K; resources, M.S., P.F. and Y.K; responsible for data collection, N.B.; data curation, H.A. and N.B.; writing-original draft preparation, N.B., M.S., P.F. and Y.K; writing-review and editing, H.A. M.G and N.B.; visualization, N.B. and H.A.; supervision, H.A.; All authors have read and agreed to the published version of the manuscript.

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Availability of Data and Materials: The datasets analyzed during the current study are available in the Global Health Data Exchange, [<https://ghdx.healthdata.org/gbd-results-tool>]

References

1. Devries K, Knight L, Petzold M, Merrill KG, Maxwell L, Williams A, et al. Who perpetrates violence against children? A systematic analysis of age-specific and sex-specific data. *BMJ paediatrics open*. 2018;2(1).
2. Wangamati CK, Yegon G, Sundby J, Prince RJ. Sexualised violence against children: a review of laws and policies in Kenya. *Sexual and reproductive health matters*. 2019;27(1):16–28.
3. Sumner SA, Mercy JA, Saul J, Motsa-Nzuza N, Kwesigabo G, Buluma R, et al. Prevalence of sexual violence against children and use of social services—seven countries, 2007–2013. *MMWR Morbidity and mortality weekly report*. 2015;64(21):565.
4. Bierre J, Elliot D. Prevalence and psychological sequelae of childhood physical and sexual abuse in a general population sample of men and women. *Child Abuse Negl*. 2003;27:1205–22.
5. Perezniето P, Montes A, Routier S, Langston L. The costs and economic impact of violence against children. Richmond, VA: ChildFund. 2014.
6. Unicef. Hidden in plain sight: A statistical analysis of violence against children. *eSocialSciences*; 2015.
7. Morgan RE, Truman J. Criminal victimization, 2020. Washington, DC: National Crime Victimization Survey, Bureau of Justice Statistics Retrieved Jan. 2021;4:2022.
8. Hillis S, Mercy J, Amobi A, Kress H. Global Prevalence of Past-year Violence Against Children: A Systematic Review and Minimum Estimates. *Pediatrics*. 2016;137(3):e20154079.
9. Finkelhor D, Turner HA, Shattuck A, Hamby SL. Prevalence of Childhood Exposure to Violence, Crime, and Abuse: Results From the National Survey of Children's Exposure to Violence. *JAMA pediatrics*. 2015;169(8):746–54.
10. Pereda N, Guilera G, Forns M, Gómez-Benito J. The prevalence of child sexual abuse in community and student samples: a meta-analysis. *Clinical psychology review*. 2009;29(4):328–38.
11. Barth J, Bermetz L, Heim E, Trelle S, Tonia T. The current prevalence of child sexual abuse worldwide: a systematic review and meta-analysis. *International journal of public health*. 2013;58(3):469–83.
12. Borumandnia N, Khadembashi N, Tabatabaei M, Alavi Majd H. The prevalence rate of sexual violence worldwide: a trend analysis. *BMC public health*. 2020;20(1):1835.
13. Roth G. Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2017 (GBD 2017) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018. *The Lancet*. 2018;392:1736-88.

14. Conceição P, Kovacevic M, Mukhopadhyay T. Human Development: A Perspective on Metrics. Measuring Human Capital: Elsevier; 2021. p. 83–115.
15. Cerna-Turoff I, Fang Z, Meierkord A, Wu Z, Yanguela J, Bangirana CA, et al. Factors associated with violence against children in low-and middle-income countries: a systematic review and meta-regression of nationally representative data. *Trauma, Violence, & Abuse*. 2021;22(2):219–32.
16. Russell D, Higgins D, Posso A. Preventing child sexual abuse: A systematic review of interventions and their efficacy in developing countries. *Child abuse & neglect*. 2020;102:104395.
17. Biswas T, Scott JG, Munir K, Thomas HJ, Huda MM, Hasan MM, et al. Global variation in the prevalence of bullying victimisation amongst adolescents: Role of peer and parental supports. *EClinicalMedicine*. 2020;20:100276.
18. Guerra C, Arredondo V, Saavedra C, Pinto-Cortez C, Benguria A, Orrego A. Gender differences in the disclosure of sexual abuse in Chilean adolescents. *Child Abuse Review*. 2021;30(3):210–25.
19. Hartill M. The sexual subjection of boys in sport: towards a theoretical account. *Elite child athlete welfare: International perspectives*. 2010:85.
20. National Action Plan for Safeguarding Children from Sexual Exploitation: Ministry of health and social affairs; 2007.
21. van Berkel SR, Prevoo MJ, Linting M, Pannebakker FD, Alink LR. Prevalence of child maltreatment in the Netherlands: An update and cross-time comparison. *Child abuse & neglect*. 2020;103:104439.
22. Kabašinskaitė D, Bak M. Lithuania's children's policy in the period of transition. *International journal of social welfare*. 2006;15(3):247–56.
23. Zelviene P, Daniunaite I, Hafstad GS, Thoresen S, Truskauskaite-Kuneviciene I, Kazlauskas E. Patterns of abuse and effects on psychosocial functioning in Lithuanian adolescents: a latent class analysis approach. *Child Abuse & Neglect*. 2020;108:104684.
24. Bustamante G, Andrade MS, Mikesell C, Cullen C, Endara P, Burneo V, et al. "I have the right to feel safe": Evaluation of a school-based child sexual abuse prevention program in Ecuador. *Child abuse & neglect*. 2019;91:31–40.

Figures

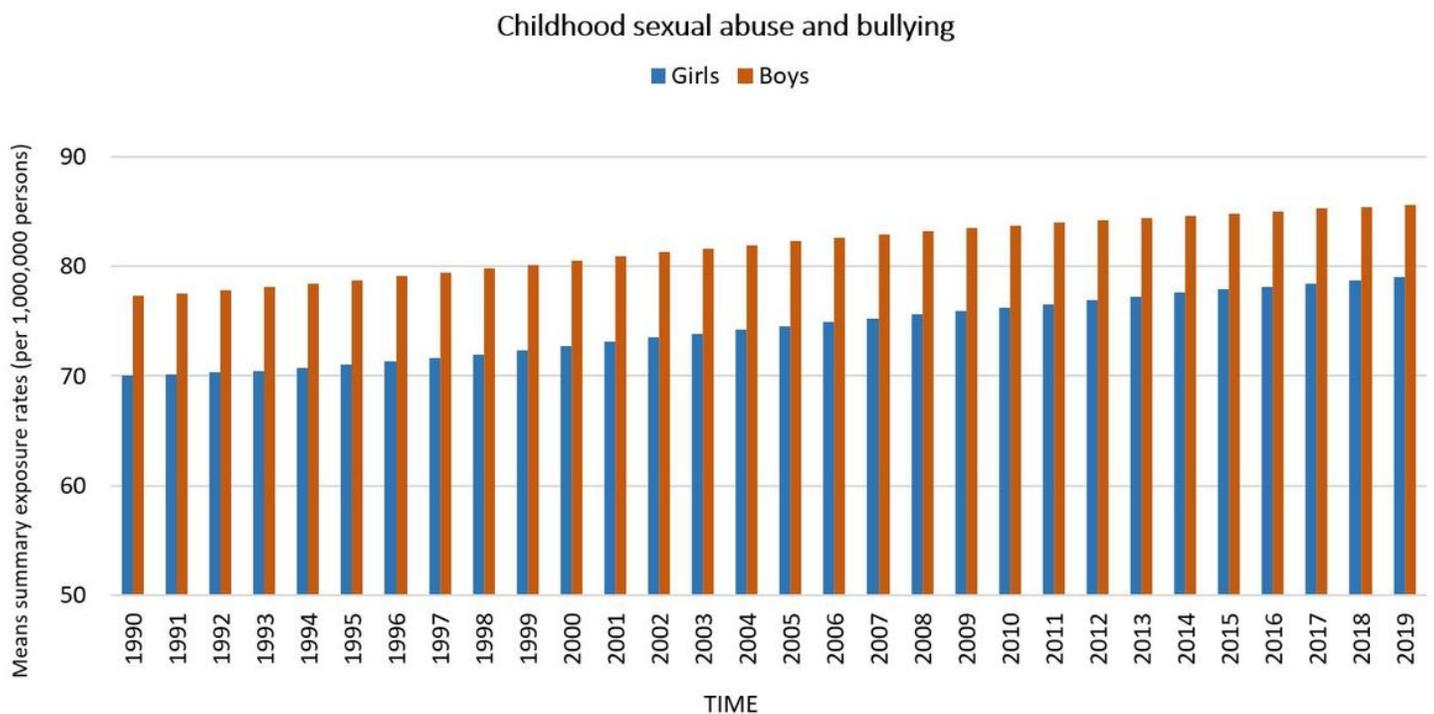


Figure 1

The means summary exposure rates (per 1,000,000 persons) of childhood sexual abuse and bullying in girls and boys.

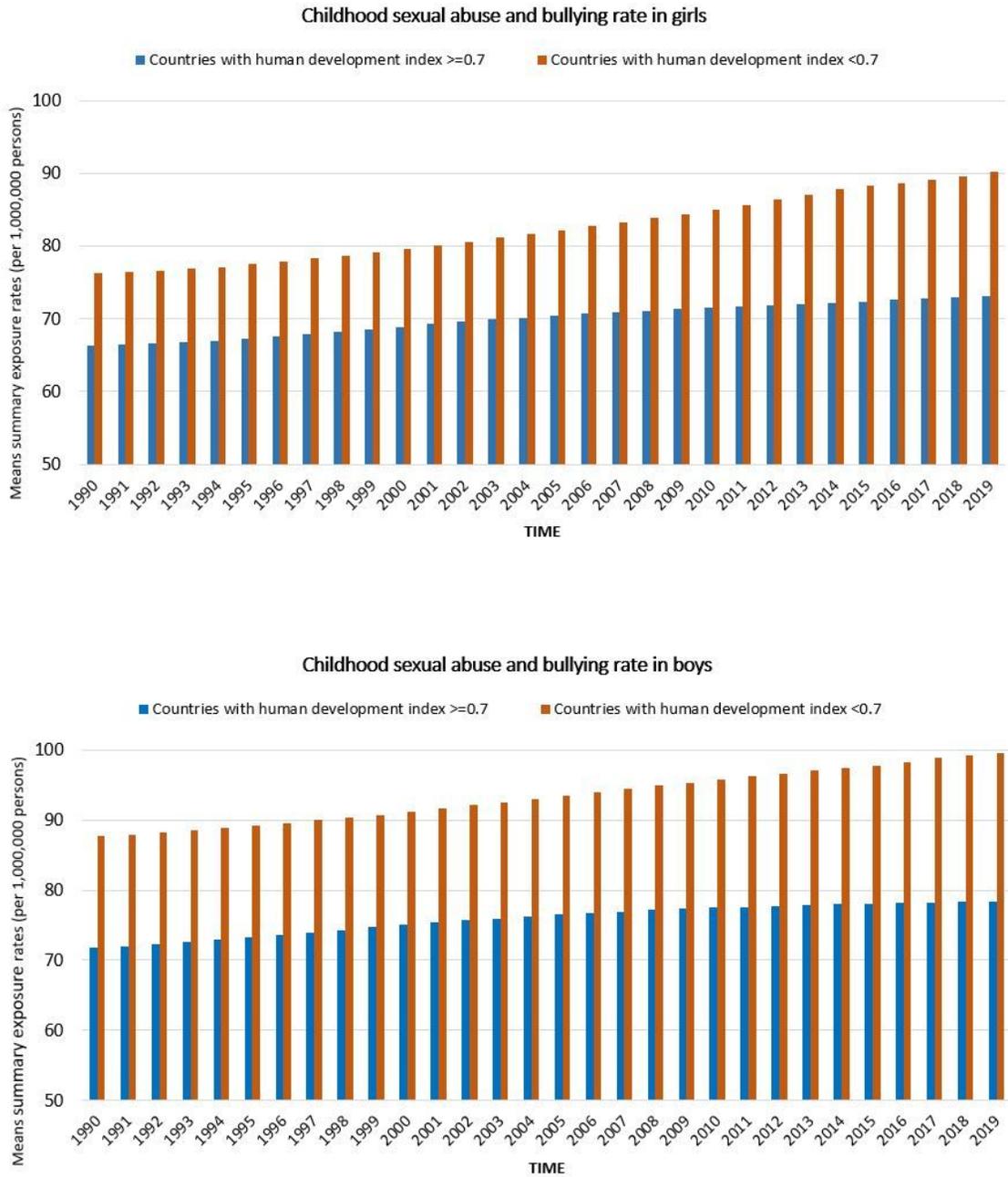
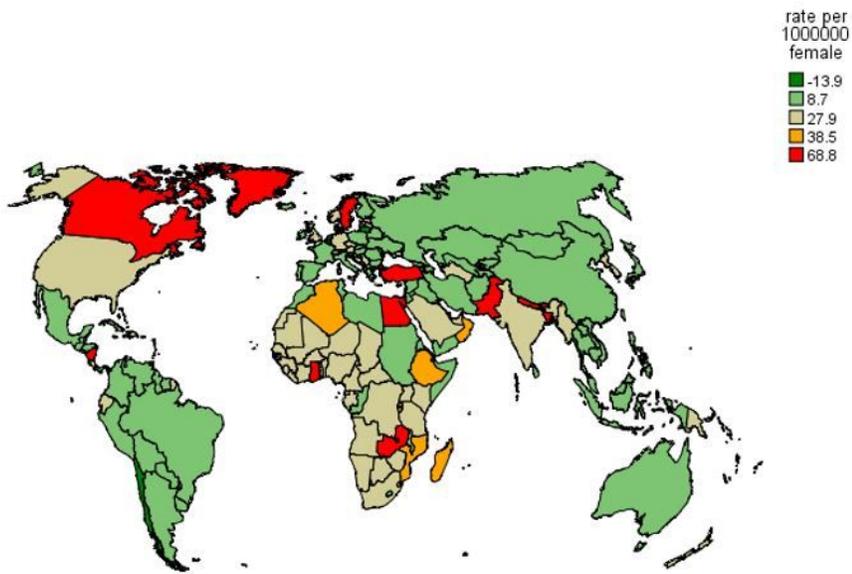


Figure 2

The means summary exposure rates (per 1,000,000 persons) of childhood sexual abuse and bullying in countries with human development index <0.7 and >=0.7 for girls (up) and boys (down).

The average change of childhood sexual abuse and bullying rate in female



The average change of childhood sexual abuse and bullying rate in male

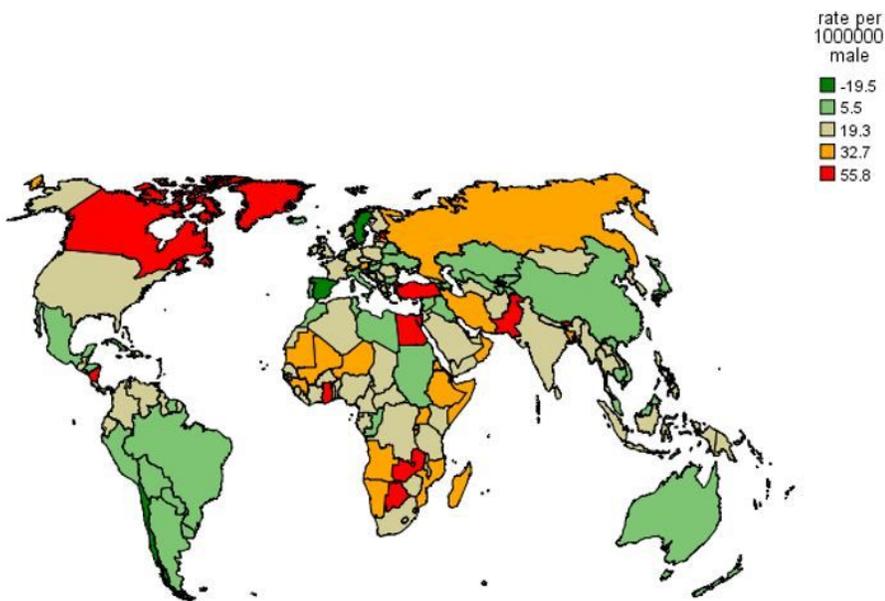


Figure 3

The maps show the result of latent growth mixture models for clustering countries based on childhood sexual abuse and bullying' outbreak trends from 1990 to 2019. Countries with similar trends of CSAB are shown with the same colors.