

# **ORIGINAL ARTICLE**

## Adolescent sexual health education program before COVID 19. Bahía Honda, 2021

Programa educativo sobre salud sexual en los adolescentes ante la COVID 19. Bahía Honda, 2021

# Grisell Mirabal-Martínez<sup>1</sup> $\boxtimes$ <sup>1</sup> $\bigcirc$ , Neisy Alfaro-García <sup>1</sup> $\bigcirc$ , Dunia Caridad Cuesta-Martínez <sup>1</sup> $\bigcirc$ , Laigne Conde-Acosta <sup>1</sup> $\bigcirc$ , Yanel Paradela-Marrero <sup>1</sup> $\bigcirc$ , Aniubis Nazco-Zorrilla <sup>1</sup> $\bigcirc$

<sup>1</sup>University of Medical Sciences of Artemisa. Manuel González Díaz Teaching Polyclinic. Teaching Department. Bahía Honda. Artemisa, Cuba.

**Received:** October 27, 2022 **Accepted:** March 22, 2023 **Published:** June 24, 2023

**Citar como:** Mirabal-Martínez G, Alfaro-García N, Cuesta-Martínez DC, Conde-Acosta L, Paradela-Marrero Y, Nazco-Zorrilla A. Programa educativo sobre salud sexual en los adolescentes ante la COVID 19. Bahía Honda, 2021. Rev Ciencias Médicas [Internet]. Año [citado: fecha de acceso]; 27(2023): e5783. Disponible en: http://revcmpinar.sld.cu/index.php/publicaciones/article/view/5783

# ABSTRACT

**Introduction:** the emergence of COVID-19 has altered the biological and psychological states of many people, including children and adolescents, all of which has a direct impact on aspects of sexual and reproductive health.

**Objective:** to evaluate the educational program on sexual health in adolescents in the face of COVID-19, in Clinic 23 of the "Manuel González Díaz" Polyclinic, Bahía Honda, Artemisa province during 2021.

**Methods**: an educational intervention study was carried out. The universe consisted of 67 adolescents and the sample consisted of 58 intentionally selected adolescents who met the inclusion and exclusion criteria. A questionnaire was prepared to collect the necessary variables and to evaluate knowledge on the subject, the intervention was designed for six weeks and then its impact was evaluated. Descriptive statistics were used to tabulate the data.

**Results:** the diagnosis proved that the frequency of sexual relations in adolescents decreased during isolation in both sexes, they refer to sexual activities with their partner and manifest online activities; both sexes manifest to be unprotected in their sexual relations with the increase of risks, most of them present a restricted criterion on sexuality and evaluate their knowledge between regular and bad, with the intervention developed, these deficiencies were corrected.

**Conclusions:** the educational program designed constituted an alternative to achieve responsible sexuality in the face of COVID19, once again highlighting the role of the physician and the family nurse in promoting health in adolescents and young people.

Keywords: Adolescent; Sexuality; Covid 19; Intervention.



#### RESUMEN

**Introducción**: la aparición de la COVID-19 ha alterado los estados biológicos y psicológicos de numerosas personas, incluidos niños y adolescentes, todo ello tiene un impacto directo en aspectos de la salud sexual y reproductiva.

**Objetivo**: evaluar el programa educativo sobre salud sexual en adolescentes ante la COVID19, en el Consultorio 23 del Policlínico "Manuel González Díaz", Bahía Honda, provincia Artemisa durante el 2021.

**Métodos:** se realizó un estudio de intervención educativa. El universo estuvo constituido por 67 adolescentes y la muestra por 58 seleccionados de manera intencional, que cumplieron criterios de inclusión y exclusión. Se confeccionó un cuestionario que recogió las variables necesarias y evaluar conocimientos sobre el tema, se diseñó la intervención por seis semanas y luego valorar su impacto. Se utilizó la estadística descriptiva para realizar la tabulación de datos.

**Resultados:** el diagnóstico comprobó que la frecuencia de relaciones sexuales en los adolescentes disminuyó durante el aislamiento en ambos sexos, refieren actividades sexuales con su pareja y manifiestan actividades online; ambos sexos se manifiestan desprotegidos en sus relaciones sexuales con el incremento de los riesgos, la mayoría presenta un criterio restringido sobre sexualidad y evalúan sus conocimientos entre regular y malo, con la intervención desarrollada se lograron corregir estas deficiencias.

**Conclusiones:** el programa educativo diseñado constituyó una alternativa para lograr una sexualidad responsable frente a la COVID19, una vez más pone de manifiesto el rol del médico y la enfermera de la familia, para promover salud en los adolescentes y jóvenes.

Palabras clave: Adolescencia; Sexualidad; Covid 19; Intervención.

#### INTRODUCTION

The emergence of COVID-19 has altered the biological and psychological states of numerous individuals, including children and adolescents and all have a direct impact on the aspect of sexual and reproductive health.<sup>(1)</sup>

The SARS-Cov-2 coronavirus causing COVID-19 disease was first reported in Wuhan China on December 31, 2019, it was until March 11, 2020 that the Sars-Cov-2 pandemic was declared.<sup>(1,2)</sup> This event brought a series of social, economic and health difficulties to people.<sup>(3)</sup>

As part of the mitigation of the pandemic, health authorities worldwide established social distancing as a measure to prevent COVID-19, which was considered one of the most effective strategies, since it is an easily transmitted and spread disease, close contact between people including sexual relations and face-to-face encounters were restricted, as a consequence, sexual behavior was modified and new forms of satisfying sexual pleasure were acquired.<sup>(4,5,6)</sup>

The idiosyncrasy of adolescents, with their low perception of risk and the long-term consequences of their actions, make them a population at high risk of contagion and transmission, making it necessary to give clear and concise messages through the means of communication they use.<sup>(3)</sup>



Several studies have documented sexual behavior during confinement, where a decrease in the frequency of sexual intercourse was observed, but masturbation increased.<sup>(7,8)</sup> In addition, different ways of satisfying their sexual desires are incorporated, such as cybersex, i.e. the use of the Internet for sexual purposes, such as pornography and sexting.<sup>(9)</sup> It should be noted that cybersex is associated with sexual risk behaviors in young people, such as oral sex, sex with casual partners and sex under the influence of alcohol or other drugs.<sup>(10)</sup>

Various associations and organizations have taken advantage of the pandemic to include clarifying messages on their websites about what is and is not safe sex in the COVID era and have done so by answering questions that may even seem obvious.<sup>(11)</sup>

According to a study by the United Nations Population Fund (UNFPA), adolescent women may have 20 % more limitations in accessing contraceptive methods, so that the marginal increase in the number of early pregnancies could vary to figures that would represent an increase in the specific adolescent fertility rate.<sup>(12)</sup>

The development of the family doctor and nurse program in Cuba allows for the implementation of actions that integrate hygienic, sanitary and social components from the community space, emphasizing care for at-risk adolescents.<sup>(13)</sup> In view of the COVID-19, knowledge on these issues is essential to enable responsible sexual behaviors that will lead to a future with a rewarding, enriching and humanistic sexual and reproductive health. For these reasons, the present research is carried out with the objective of evaluating the educational program on sexual health in adolescents before the COVID19, in Clinic 23 of the Manuel González Díaz Polyclinic, Bahía Honda, Artemisa province during the year 2021.

# METHODS

The research classifies as quasi-experimental intervention, with the objective of implementing an intervention for the care of the sexual health of adolescents before COVID, 19. The study universe was constituted by the 67 adolescents of the CMF23, belonging to the Manuel González Díaz Teaching Polyclinic in Bahía Honda during 2021 and the sample was conformed by 58 of them who fulfilled the inclusion and exclusion criteria.

# Inclusion criteria

Adolescents between 15/19 years old, who belong to the aforementioned clinic, who have a computer or mobile device and whose parents gave their consent to participate in the research.

# Exclusion criteria

Adolescents with some type of mental disability and who at the time of the research were not in the area.

The variables studied were: sex, sexual frequency, use of contraceptive methods, general knowledge before and after the educational program.

The research consisted of three stages: diagnosis, intervention and evaluation:

Página 3



**Diagnosis:** A questionnaire was applied with the objective of identifying variables such as sexual frequency, sexual behaviors and use of contraceptive methods (MAC) during isolation, as well as evaluating the knowledge that adolescents have regarding sexuality and COVID 19 this question of the questionnaire had five items, each was assigned a value of 20 points for a final value of 100 points. We defined the level of knowledge as High, if the correct answers reached 80 or more points; acceptable if they ranged from 60 to 79 points; and Low if they achieved less than 60 points. The data collection instruments were prepared by the authors, where questions were selected and adapted according to the adolescents, which were validated by experts.

**Intervention Stage.** Once the learning needs were identified, the health education program aimed at adolescents was designed and implemented, prepared by the authors and subsequently validated by expert criteria, with the following topics: Once the learning needs were identified, the intervention was designed and implemented virtually through a computer device such as a computer, tablet or mobile device, addressing the following topics:

- 1. Adolescence and Covid 19.
- 2. Adolescence, sexuality and Covid 19
- 3. Sexting: its definition, risk factors and consequences.
- 4. Contraceptive methods and COVID 19,5. Talks were held weekly for a period of six weeks.

The methodology was virtual and personalized. Six weeks later, the post-intervention questionnaire was applied.

**Evaluation Stage.** Six weeks later, the questionnaire was applied again.

Descriptive statistical methods were applied with mathematical procedures to organize, classify and interpret the qualitative indicators obtained in the empirical research, which were presented in the form of tables, with the calculation of absolute and relative frequencies. Inferential statistics were used. For this purpose, the Diagnostic Tests module of Epidat 3,1 was used, and the Pearson Chi-square test was determined by the likelihood ratio for a significance level of 0,05, with a confidence interval (CI) of 95 %.

The research is based on the principles of medical ethics, which specify the rights of the persons who undergo the research, the voluntary nature of the research and the strict confidentiality of the results.

Oral and written consent was obtained from the persons who were selected. In addition, the confidentiality of the data collected was guaranteed, which were used for scientific purposes that complied with ethical parameters.

## RESULTS

44,8 % of adolescents of both sexes reported a decrease in sexual frequency. This was more significant in the female sex with 29,3 % as opposed to 25,8 % in the male sex with an increase in sexual frequency. There was statistical significance between sexual frequency and sex in the sample studied (X2= 6,3482, p=0,04). (Table 1)

4

Página



Table 1. Distribution of adolescents according to sexual frequency and sex during isolation	า.
CMF23. Manuel González Díaz Teaching Polyclinic. Bahía Honda. 2021.	

Sexual frequency during isolation	Fei	emale		Male		Total	
	No.	%	No.	%	No.	%	
Less	17	29,3	9	15,5	26	44,8	
More	6	10,3	15	25,8	21	36,2	
Same	5	8,6	6	10,3	11	19,0	
Total	28	48,3	30	51,7	58	100	

Source: Questionnaire X2 = 6.3482 P=0,04

Regarding sexual behaviors during isolation in both sexes, it was observed that these adolescents have sexual relations with their partner (89,7 %), they also have sexual relations with occasional partners (41,4 %) and have sexual relations online (63,8 %). Statistical significance p<0.05 was observed among the variables studied (X2= 7,9499, p=0,0471). (Table 2)

Sexual behaviors during isolation		nale =28)	Male (n=30)		Total (n=58)	
	No.	%	No.	%	No.	%
Sexual intercourse with a partner	25	43,1	27	46,6	52	89,7
Sexual relations with casual partner	11	19,0	13	22,4	24	41,4
Online sexual activities	16	27,6	21	36,2	37	63,8
Masturbation	1	1,7	13	22,4	14	24,1

Table 2. Sexual behaviors during isolation.

Source: Questionnaire X2= 7,9499 p=0,0471

Only 39,7 % acknowledge having protected themselves with some contraceptive method compared to 60,3 % who did not use protection. There is no statistical significance between the variables studied (X2= 0,2320 p=0,6301). (Table 3)

MAC USE IN SEXUAL RELATIONSHIP	Female		М	ale	TOTAL	
	No.	%	No.	%	No.	%
Yes	12	20,7	11	19,0	23	39,7
No	16	27,6	19	32,7	35	60,3
Total	28	48,3	30	51,7	58	100

Table 3. Use of	<sup>Contraceptive Methods</sup>	s (MAC) in Sexual Relations.

Source: Questionnaire X2= 0,2320 p=0,6301

The knowledge of sexuality and Covid 19 showed that 43,1 % presented a regular level of knowledge, followed by 37,9 % with a low level of knowledge. There was no statistical significance between the variables studied (X2= 2,4674 p=0.,8721) (Table 4).



Knowledge	Fe	Female		Male		Total	
	No	%	Nº	%	Nº	%	
High	6	10,3	5	8,6	11	19,0	
Regular	14	24,1	11	19,0	25	43,1	
Low	8	13,8	14	24,1	22	37,9	
Total	28	48,3	30	51,7	58	100	

# Table 4. Knowledge of Sexuality and COVID 19.

After the educational intervention, 91,3 % of the adolescents showed knowledge on the subject, with statistical significance among the variables studied (X2 = 61,2036 p=0,0000).

Knowledge	Be	Before		fter
	No	%	No	%
High	11	19,0	53	91,3
Regular	25	43,1	6	10,3
Low	22	37,9	0	0
Total	58	100	58	100

**Table 5.** Level of knowledge after the educational intervention.

Source: Questionnaire.

X2= 61.2036 p=0.0000

# DISCUSSION

The results of the research show changes in the sexual frequency of adolescents during isolation, which have decreased, showing a difference in terms of gender, where males report more frequent sexual relations, while no significant changes in frequency are observed in females.

Coinciding with the literature reviewed, social isolation has meant for the youngest, an impossibility to meet people, interact with the group and have sexual relations.<sup>(1)</sup> Both males and females during isolation report sexual activities with their partner and manifest online activities. This coincides with the research conducted in 2022 by Hernández Figaredo et al.<sup>(14)</sup>

Sexting is the act of producing and sharing sexual or erotic content through the Internet, especially through cell phones, and is a widespread practice among adolescents. It has the advantage that it allows couples to enjoy each other at a distance and with the immediacy that is usually required for the encounter. Although sexting has many negative connotations associated with it, it also has benefits for the people who practice it, if it is done well: it allows the exploration and expression of one's own sexuality, expands the repertoire of erotic behaviors, allows the establishment and protection of individual limits, and reduces the chances of suffering physical violence, unwanted pregnancies or sexually transmitted infections.<sup>(15)</sup>

Calero Yera E,<sup>(16)</sup> points out in his research "that more than half of all adolescents do not use contraceptives in their sexual intercourse; and raises the lack of concern about the protection of sexual activity". Alfonso Figueroa,<sup>(13)</sup> found similar results to this research in his study.



The literature refers that COVID 19 may be affecting consultations related to contraception, with the implications that this may entail, especially in terms of unwanted pregnancies.<sup>(17,18)</sup> The authors consider that most of the adolescents had some knowledge about the different aspects of sexuality in relation to COVID 19.

There is currently no evidence to indicate that SARS-CoV-2 is found in fluids such as semen or vaginal fluid. For this reason, it is unlikely that the virus is transmitted through practices such as vaginal or anal penetration. However, it is important to pay special attention to hygiene measures, important both before and now, washing hands and any erotic toys with soap and water.<sup>(19)</sup> In a study conducted with young Cubans on the subject, insufficient knowledge was also found, which improved with the intervention, coinciding with these results.<sup>(20)</sup>

# CONCLUSIONS

With the intervention developed, they improved their knowledge on the subject. Confirming once again that as long as they know about human sexuality, they will be able to have a responsible, full and happy sexuality. It constituted an alternative to achieve a responsible sexuality in the face of COVID19, once again highlighting the role of the physician and the family nurse to promote health and contribute to the human improvement of adolescents and young people.

#### **Conflict of interest**

The authors declare that there is no conflict of interest.

## Authors' contribution

**GMM:** participated in conceptualization, research, project management, supervision, visualization, writing - original draft, writing - revision and editing.

**NAG:** participated in conceptualization, research, visualization, writing - original draft, writing - review and editing.

**DCCM**: participated in conceptualization, research, visualization, writing - original draft, writing - review and editing.

**LCA, YPM, ANZ :** participated in conceptualization, research, writing - original draft. All authors approved the final version of the manuscript.

#### Funding

The authors did not receive funding for the development of this research.

# **BIBLIOGRAPHIC REFERENCES**

1. Organización Mundial de la Salud. Brote por enfermedad de coronavirus (Covid-19) [Internet].OMS;2020[citado01/10/2020].Disponibleen:https://www.who.int/es/emergencies/diseases/novel-coronavirus-2019

2. Organización Mundial de la Salud. COVID-19: cronología de la actuación de la OMS [Internet]. OMS; 2020 [consultado 01/10/2020]. Disponible en: <u>https://www.who.int/es/news-room/detail/27-04-2020-who-timeline---covid-19</u>



3. Peinado-Ibarra F, Mehrad M, Di -Mauro M, Peraza-Godoy MF, García -Cruz E, Ali-Nilforoushzadeh M, et al. Impact of the COVID-19 pandemic on the sexual behavior of the population. The vision of the east and the west. Int Braz J Urol [Internet]. 2020 [citado 20/09/2021]; 46(Supl1): 104-112. Disponible en: <u>https://doi.org/10.1590/S1677-5538.IBJU.2020.S116</u>

4. Ministerio de Salud Argentina. Recomendaciones para sexo seguro. [Internet]. 2020 [citado 01/10/2020]. Disponible en: <u>http://www.msal.gob.ar/images/stories/ryc/gra</u> <u>ficos/0000001468cnt-covid-19 recomendaciones-para-sexo-seguro.pdf</u>

5. DOF. Acuerdo por el que se establecen las medidas preventivas que se deberán implementar para la mitigación y control de los riesgos para la salud que implica la enfermedad por el virus SARS-CoV2 (COVID-19) [Internet]. DOF Secretaría de Gobernación; 2020 [consultado 01/10/2020]. Disponible en: https://www.dof.gob.mx/nota\_detalle.php?codigo=5590339&fecha=24/03/2020

6. Yuksel B, Ozgor F. Effect of the COVID-19 pandemic on female sexual behavior. Int J Gynaecol Obstet [Internet]. 2020 [consultado 01/10/2020]; 150(1): 98-102. Disponible en: <u>https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1002/ijgo.13193</u>

7. Peña G, Cabrera- Gámez M, Ovies- Carballo G, Rodríguez- Pendás B. Salud sexual y reproductiva en tiempos de la COVID-19. Rev Cubana Salud Pública [Internet]. 2021 [citado 07/03/2023]; 47(4): e2864. Disponible en: http://scielo.sld.cu/scielo.php?script=sci\_arttext&pid=S086434662021000400015&Ing=es.

8. Amssac. Sexualidad y COVI-19 Resultados de la Encuesta Amssac [Internet]. Asociación Mexicana para la Salud Sexual, AC; 2020 [consultado 01/01/2020]. Disponible en: <u>https://www.amssac.org/sexualidad-y-covid-19-resultados-de-la-encuesta-amssac/</u>

9. Amaro-Hinojosa MD, Jiménez-Vázquez V, Juárez-Mediana LL, Torres-Obregon R, Orozco-Gómez C. Conductas sexuales en jóvenes mexicanos durante el confinamiento por COVID-19. Sanus [Internet]. 2020 Dic [citado 08/03/2023]; 5(16): 00005. Disponible en: <u>https://www.scielo.org.mx/scielo.php?script=sci\_arttext&pid=S2448-60942020000400005</u>

10. García-Barba M, Nebot-García JN, Juliá BG, Giménez-García C. Conductas sexuales de riesgo y uso del cibersexo. Comparación entre diferentes perfiles de uso del cibersexo. Ágora de Salut [Internet]. 2019 [citado 01/10/2020]: 137-146. Disponible en: https://www.semanticscholar.org/paper/Conductas-sexuales-de-riesgo-y-uso-del-cibersexo.-Barba-Garc%C3%ADa/72a0d393ec1d9091bdd02da30bb3820b109e7fef

11. Chiroque - Nolasco LA. Percepción y actitudes frente a la atención de planificación familiar en tiempos de Covid–19 en mujeres de la localidad San Cristo–Sechura–Piura [Internet]. <u>Universidad Católica Los Ángeles de Chimbote;</u> 2021 [citado 07/03/2023]. Disponible en: <u>https://bibliotecadigital.oducal.com/Record/ir-20.500.13032-21247</u>

12. de Planificación Familiar Estatal. Conéctate con cabeza: disfruta sin riesgos con tu móvil [Internet]. SEDRA; 2020 [citado 07/03/2023] Disponible en: <u>https://sedra-fpfe.org/conectate-con-cabeza/</u>



13. Alfonso- Figueroa L, Figueroa Pérez L. Conductas sexuales de riesgo en adolescentes desde el contexto cubano. Rev Ciencias Médicas [Internet]. 2017 [citado 07/03/2023]; 21(2): 143-151. Disponible en: <u>https://revcmpinar.sld.cu/index.php/publicaciones/article/view/4318</u>

14. Hernández - Figaredo P, García - Gutiérrez L. Repercusión de la pandemia COVID-19 en la actividad sexual humana. Rev Hum Med [Internet]. 2022 [citado 07/03/2023]; 22(1): 188-206. Disponible en: <u>https://humanidadesmedicas.sld.cu/index.php/hm/article/view/2188/pdf</u>

15. Mercado- Contreras CT, Pedraza- Cabrera FG, Martínez -Martínez KI. Sexting: su definición, factores de riesgo y consecuencias. Revista sobre la infancia y la adolescencia [Internet] 2016 [citado 07/03/2023]; 10(2): 118. Disponible en: <u>https://m.riunet.upv.es/handle/10251/73303</u>

16. Calero- Yera E. Sexualidad en la adolescencia. Rev Cubana Med Gen Integr [Internet].2019 [citado 07/03/2023]; 35(2):e418.Disponibleen:https://revmgi.sld.cu/index.php/mgi/article/view/418/244Disponibleen:

17. Alfonso- González I, Reyes- Salgado L N, Arcos- Valencia J-A, Toscano- Arcos M P. Family planning in times of covid-19. *Revista Universidad y Sociedad* [Internet]. 2021 [citado 07/03/2023]; 13(6): 583-589. Disponible en: <u>http://scielo.sld.cu/scielo.php?script=sci\_abstract&pid=S2218-36202021000600583&lng=es&nrm=iso&tlng=en</u>

18. Asenjo PJ, Fajardo Quispe CS. El embarazo en la adolescencia desde la perspectiva actual en COVID-19. Rev Cubana Pediatr [Internet]. 2021 [citado 07/03/2023]; 93(2): e1444. Disponible en: <u>https://revpediatria.sld.cu/index.php/ped/article/view/1444</u>

19. Nebot- García JE, Ruiz -Palomino E, Giménez- García C, et al. Frecuencia sexual de los adolescentes españoles durante el confinamiento por COVID-19. Revista de Psicología Clínica con Niños y Adolescentes [Internet]. 2020 [citado 07/03/2023]; 7(3): 19-26. Disponible en: https://pesquisa.bvsalud.org/portal/resource/e/ibc-195035

20. Almeida- Gacives W J, Borges - Acosta M, Bolufé - Vilaza M E. Acciones educativas para una sexualidad responsable en adolescentes desde la extensión universitaria. 2016 [citado 07/03/2023]; EDUMECENTRO [Internet]. 8(1): 174-180. Disponible en: https://revedumecentro.sld.cu/index.php/edumc/article/view/712/html 106

σ

