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Effectiveness of a paediatric health education program after its implantation in Primary Care in Spain

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Abstract

Introduction: Many parents visit paediatric health services due to minor complaints. The objective of this study was to analyse the effectiveness of the Health Education program "If it is urgent for you, is it urgent for me?"

Methodology: A randomized study with an educational intervention aimed at pregnant women who are in their third trimester of their pregnancy and at their partners. Bivariate analysis were carried out to find differences between systematized education and control group. The variables analyzed included epidemiological data of the parents, pediatric knowledge, satisfaction with the health services, and number and adqueacy of consultations in the first 6 months of the child's life. The program consisted of 6 sessions: rational use of paediatric services, fever, respiratory infections, gastroenteritis, skin injuries, and accidents.

Results: Pregnant women participated more than their partners, particularly first-time pregnancies and high-school trained. Sessions on fever and respiratory infections reached maximum occupancy. Some training deficits were detected: most right responses were found regarding the fever issue (86,4%), and least in the use of health resources issue (14,4%). An improvement was shown in the level of paediatric knowledge and satisfaction with health services (p<0,05). The number of consultations for the reasons studied hereby was also reduced (3,5 in the control group vs 2,0 in the intervention group), and the level of adequacy improved in 16,3% (RR:1,62;95%CI:1,26-2,07; p<0,05).

Conclusions: We suggest using this type of educational strategies to improve future parents' training on the key health problems of their children.

Keywords: Health Education, Educational Program, Community, Women Pregnant, General Paediatrics, Consultations

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Introduction

In recent decades there has been an important increase in the number of consultations to paediatric health services in Spain, but it has not been accompanied by an increase in the child population[1,2,3]. In several studies it has been shown that emergency rooms at hospital are often used inadequately[4,5]. There is an increase in consultations due to banal processes (mucus, very mild fever, etc), which do not require complementary tests or treatment.

People must be provided with the necessary knowledges and training to make health decisions sensibly; therefore, several institutions recommend developing strategies addressed to promote and prevent diseases[6,7]. The key to community interventions lies in promoting community and individual abilities and skills so that they can solve their own problems[8,9].

According to scientific literature, interventions in health education seem to be useful[10-14]; but the effects of prenatal training remain unknown[15].

The Health Education Program "If it is urgent for you, is it urgent for me?"[16] aims to provide prospective parents with knowledge and skills, to allow them to make right decisions about their children's health, through a biopsychosocial approach with active pedagogy.

The objectives of this study were to analyse the effectiveness of said program in 1) reducing and adapting paediatric consultations, 2) in parents' paediatric knowledge, and 3) doctor-patient relationship.

Materials and Methods

A comparative, controlled, randomized trial of an educational intervention was performed with measurement of the effect in both control and intervention groups. Pregnant women and their partners who attended follow-up pregnancy facilities at their healthcare centre were included. There are 41 healthcare centres in Valladolid (Spain). We randomized 4 healthcare centres to the intervention group and 2 to the control group. Midwives recruited patients through non-systematic sampling of consecutive cases. At the healthcare centres assigned to the intervention group, the development of the program was reported orally and through posters stapled on the door of the medical office.

Inclusion criteria were: 1) Being in the third trimester of pregnancy: after week 26 of pregnancy. 2) Having received written information about the study characteristics and have signed an informed consent. 3) Attending at least 50% of sessions. Exclusion criteria were: 1) Lack of understanding of Spanish language. 2) Patients controlled exclusively at private medical facilities.

The program "If it is urgent for you, is it urgent for me?" was delivered to the intervention group. It consisted of a workshop with 6 sessions, the first one related to the rational use of paediatric hospital emergencies services, and the other five related to the handling of children's most common health problems: fever, acute respiratory infections (ARI), gastroenteritis (GI), skin injuries, and accidents (trauma, wounds, burnings, and sprains).

Sessions were developed by 8 paediatricians, 2 nurses y 3 resident physicians, from October 2016 to March 2017. Teachers received a training workshop beforehand. Group and participatory methodology was used, with independent sessions and structured contents and activities (chronograms).

The study variables were:

- Epidemiological data: age, sex, parity, educational level, employment status, nationality.
- Level of knowledge initially and after (six months after the delivery of children): six multiple-choice questions. One question per educational module.
- Level of satisfaction with each session: 10 questions were assessed, with a 1-10 scale. Besides, two open questions were added for suggestions.
- Level of satisfaction with the paediatric care received during the first 6 months of life: a 1-10 scale was used. Another 4 questions about satisfaction with the workshop were included in the intervention group.
- Record of consultations and level of adequacy during the first 6 months of life. This was performed by two paediatricians blinded regarding the control/intervention assignment, by means of electronic clinical record. Data were collected about the total number of consultations to the healthcare service (due to the reason under study or to other reasons), the reason for the consultation, the adequacy or inadequacy criterion for each pathology, the place where the consultation was made (primary care paediatrician or nurse setting, primary care emergencies, hospital emergencies, private paediatrician, paediatric emergency hotline, 112), and the advice received (no treatment, symptomatic treatment, specific or etiological therapy, referral to nurse, referral to their paediatrician, referral to hospital emergencies, specialized consultation, hospital admission).

A specific structured model was developed for each diagnostic group (fever, ARI, GI, skin injuries, and accidents) to assess the adequacy of the consultations. The clinical features of the child (emergency criteria from Spanish Paediatric Emergency Society) and biopsychococial factors of the patient and their environment were taken into account, find more details in Table 1.

The study was approved by the ethics committee corresponding to the primary investigator (Río Hortega Hospital, Valladolid).

Statistical analysis: Data was collected in an Access database. Quantitative variables are presented with mean ± standard desviation (SD), or with the median and the interquartile range for those which do not follow a normal distribution. Qualitative variables are presented according to their frequency distribution. Normality of quantitative variables was established with the Kolmogorov-Smirnov test.

The association among qualitative variables was analysed with Pearson's chi-squared test. Should the number of cells with expected values under 5 would be greater than 20%, the exact Fisher test or odds ratio test were used for variables with more than 2 categories.

Comparisons among quantitative values were obtained with Student's t test and Mann-Whitney's U test, when necessary.

Changes in participants before and after receiving workshops were analysed with Student's t test for related samples, or with its alternative test, Wilcoxon's non-parametric test.

Data were analysed with IBM SPSS Statistics version 20.0 software for Windows. Values with $p<0,05$ were considered statistically significant. To study the magnitude of the impact of the intervention on the adequacy of consultations, the software Epidat 3.1 for epidemiological analysis of tabulated data was used.

Inadequate criteria	Adequate criteria
1.It is not an emergency: it does not meet medical seriousness criteria* 2.Referred from other service by mistake 3.The patient has consulted other health service which they do not trust 4.Asks for review of a health problem that evolves favourably 5.Biopsychosocial concerns (vacation, live far away, no other caregiver available, etc.) 6.Patient's psychological concerns (hypochondriac, mentally retarded, simulator, etc.) 7.Does not adhere to previously indicated therapy 8.Other	1. Meets medical seriousness criteria* 2. Properly referred from other health service 3. Requires a relevant, recommended review 4. Requires complementary tests (blood tests, X-rays, echo, CT, EKG) 5. Drug-induced reaction observed 6. Requires special medication 7. Requires admission 8. Other
* According to emergency criteria by the Spanish Society of Paediatric Emergencies (https://seup.org/publicaciones/publicacionesgt/hojaspadres.html).	

Table 1: Adequacy/inadequacy criteria of consultations to paediatric health services

Results

A total of 294 pregnant women (from the 4 healthcare centers) received information about participating in the study. Eventually, a total of 154 people attended sessions: 130 pregnant women (44,21% of total) y 24 future fathers (8,16%). Twenty-nine (29) pregnant women were excluded because they attended only 1 or 2 sessions. Eventually, 101 pregnant women attended 3 or more sessions (intervention group). Control group was made of 101 pregnant women from two healthcare centres in the same province and time; none rejected participation.

Epidemiological data and attendance

No statistically significant differences were found between the two groups regarding age, employment status or nationality, which were 34,76 years (SD 3,95) and primarily employed and Spanish in both groups. But differences were found regarding the number of children and the educational level (p<0,001). The mean number of children in the control group was 1,03 (SD 0,9) versus 0,4 (SD 0,6) in the intervention group. 44,2% of pregnant women and 28,4% of their partners in this group had college degrees.

Ten courses of six sessions were taught. 77,7% out of 130 pregnant women attended three or more sessions, and 26,9%, attended all six. Most attended session was the one about fever, followed by the one about ARI. 81,5% of mothers attended alone, and 18,5% attended accompanied by her partner to one of the sessions at least. 75% of those who attended all sessions were first-time parents (versus 25% who already had one child), and none had two or more children. The percentage of pregnant women who attended accompanied by their partners was also higher in first-time mothers: 91,7% versus 55,7% of women who attended unaccompanied (p<0,001).

Educational background analysis

No statistically significant differences were found regarding the level of knowledge among pregnant women in the control or intervention groups. 69% of total members of the intervention group gave right answers to 3 or more questions, versus 64,3% in the control group. The number of right answers did not depend on the age of pregnant women or the number of children. Differences (though non-significant) were found only in the intervention group with respect to the level of studies, with more right answers in the higher education levels. In both groups the question which obtained the highest percentage of right answers was the one related to fever, and the one with lowest percentage was related to the use of health services.

Sessions assessment: satisfaction

A total of 580 satisfaction questionnaires were collected after sessions: 83,6% completed by the mother, 11,4% by the father, and 5% unspecified. Subjective assessments and comments were very positive. Average mark in all sections and in all sessions was over 9. Only one question was significantly under the mean: "Do you believe that the workshop will avoid any visit to your paediatrician or to hospital emergency room?" The less approved session was the one about the rational use of health services. Besides new issues for future workshops were requested, including infant colic and cardiopulmonary resuscitation.

Program effectiveness: knowledge after, paediatric care satisfaction, and consultations

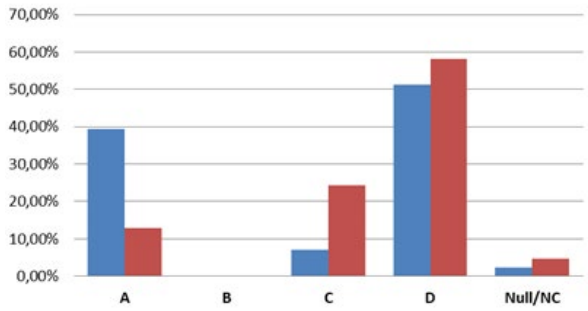
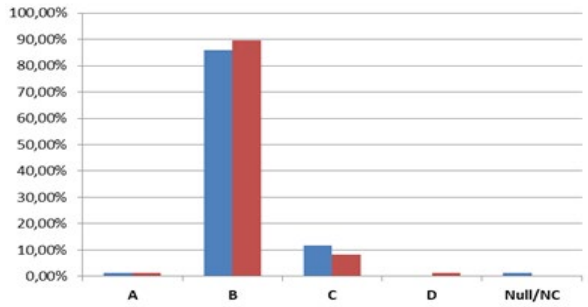
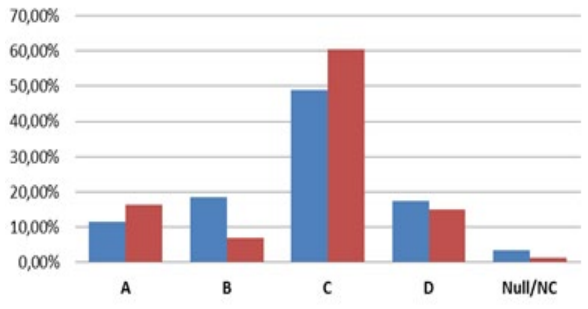
Six months after the delivery of children, the level of knowledge after attending the workshop was better in the intervention group than in the control group, with a higher number of right answers regarding all pathologies under study. Significant differences were found in the questions about use of health services, GI, and accidents (Table 2). Furthermore, 78,6% of pregnant women in the intervention group who gave less than 3 right answers initially, gave 3 or more questions at 6 months, versus 64,5% in the control group (p<0,001).

The level of satisfaction of mothers in the intervention group, both with personal relationship and with medical care, and globally with health services (paediatric consultations at primary care, primary care emergencies and hospital emergency room) was higher than in the control group. A little more than 6 months after the workshops (pregnancy period + baby's 6 first months of life), the intervention group remains highly satisfied and agrees that this sort of activities should be maintained (Table 3).

Regarding the demand of health care, 1105 consultations were made during the 6 first months of life: 44,7% in the intervention group, and 55,3% in the control group. 45,9% were due to the reasons under study, and 54,1% due to other reasons. 29% of participants consulted more than once for the same reason. 65,6% of consultations were addressed to the primary care paediatrician, 11% to hospital emergency rooms, and 5,8% to primary emergencies. 4,5% of children were admitted, 2,7% required referral to hospital emergency room, and 2,3% required diagnostic tests. Among "other reasons", those which generated

most consultations were gas colics (6,3%), followed by weight controls (5,1%), and constipation (4,9%).

The mean of consultations due by the reasons under study was 3,5 (SD 2,7) in the control group versus 2,0 (SD 1,9) in the intervention group (p<0,001). It was observed that the intervention group consulted less for all the reasons under study, except for GI (p<0,05). Trauma hardly impacted any group during the first 6 months of life. Also, the level of adequacy was better in the intervention group, both globally and in each individual subject (except for GI), with 42,7% of adequate consultations, versus 26,4% in the control group, (RR: 1,62 , 95% CI: 1,26-2,07, p<0,05). Frequency and level of adequacy of consultations are listed in Table 4.

QUESTIONS/ANSWERS	CONTROL/INTERVENTION Control Intervention	P valor
RATIONAL USE OF HEALTH SERVICES **1. Tick the right answer regarding the Social Security health services:** A.Most consultations at an emergency service are suitable B.Public health services do not perform a triage of emergencies C.Health services pose an economic burden for most countries D.Most parents go to emergency rooms because they fear their child has a serious disease		<0,001
FEVER **2. Which is the right action when the child has fever?** A.Go immediately to emergency rooms to receive guidance from the physician B.Keep calm, assess the child's general status and warning signs C.Administer ibuprofen or acetaminophen so that fever goes down as soon as possible D.Administer antibiotics for the infection		NS
ARI **3. Regarding respiratory infections, please tick the wrong answer:** A.They are the most frequent infections in children, particularly when they attend the nursery school B.Antibiotics loose effectiveness when unnecessarily used C.Antitussives and mucolytics are highly effective against cough and mucus D.Mainstays of therapy are clearing snot nose and moisturizing		NS

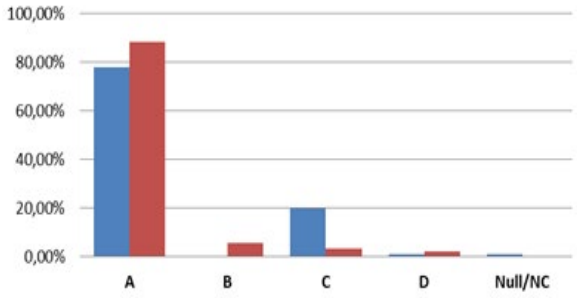
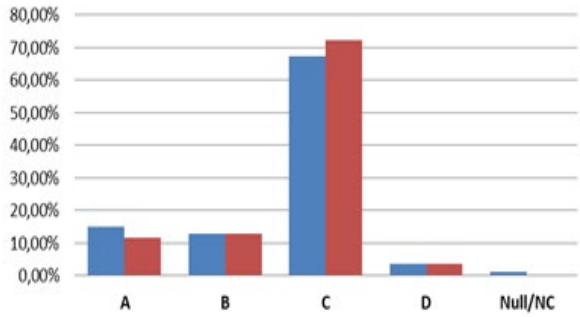
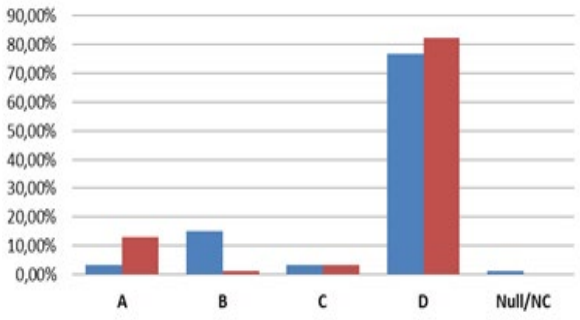
GI **4. Gastroenteritis:** A.They typically heal spontaneously within few days B.They are not transmittable C.They require medication D.They are rare children		<0,001
SKIN INJURIES **5. Please tick the wrong statement** A.Most skin diseases are mild in children, however some cases may be serious B.Atopic dermatitis is a skin chronic condition affecting many children C.Atopic dermatitis does not bother or itch D.Children skin must receive care		NS
ACCIDENTS **6. Children have accidents often. Please tick what should not be done to manage a wound:** A.Wash with soap and water B.Leave the wound open, if it is not to going to get too much dirty C.Visit the paediatrician if the wound won't stop bleeding D.Apply an antibiotic ointment to avoid infections		<0,001
NC: no answer; NS: non-significant; ARI: acute respiratory infections; GI: acute gastroenteritis		

Table 2: Knowledge questionnaire and differences in the level of knowledge among pregnant women in the control and intervention groups, after attending the program sessions

SATISFACTION WITH HEALTH SERVICES					
	Control		Intervention		
	Mean	Standard deviation	Mean	Standard deviation	p-value
Personal relationship with the paediatrician	8,34	1,08	8,91	1,06	<0,001
Personal relationship with the emergency services at primary care	7,51	1,15	8,45	1,21	<0,001
Personal relationship with hospital emergency services	7,60	1,22	8,42	1,27	<0,001
Paediatrician at primary care	8,43	1,04	8,95	1,17	<0,05
Medical care with the emergency services at primary care	7,50	1,19	8,43	1,07	<0,001
Medical care with hospital emergency services	7,51	1,23	8,42	1,16	<0,001
Overall satisfaction with the paediatrician	8,17	0,92	8,76	0,99	<0,001
Workshops usefulness			8,94	0,99	
Would avoid visits			8,52	1,65	
Has helped the relationship with the paediatrician			8,63	1,24	
Workshops' recommendation			9,66	0,62	

Table 3: Level of satisfaction of pregnant women with health services in the control and intervention groups, 6 months after delivery

	Consultations		Unsuitable		Suitable	
	Count	%	Count	%	Count	%
CONTROL						
Fever	39	69,6%	19	48,7%	20	51,3%
ARI	216	71,3%	171	79,2%	45	20,8%
GI	16	48,5%	9	56,3%	7	43,8%
Skin problems	64	56,1%	48	75,0%	16	25,0%
Accidents	1	100%	1	100%	0	0,0%
Total	336	66,3%	248	73,6%	88	26,4%
INTERVENTION						
Fever	17	30,4%	5	29,4%	12	70,6%
ARI	87	28,7%	57	65,5%	30	34,5%
GI	17	51,5%	11	64,7%	6	35,3%
Skin problems	50	43,9%	25	50,0%	25	50,0%
Accidents	0	0,0%	0	0,0%	0	0,0%
Total	171	33,7%	98	57,3%	73	42,7%
p-value	<0,05		<0,05			
ARI: acute respiratory infection; GI: acute gastroenteritis						

Table 4: Differences in consultation frequency and adequacy level

Discussion

Everyday routine at health services shows that many patients consult due to ignorance of health problems and to psychosocial and emotional conditionings, rather than strictly foe medical reasons[1-5]. Although the assessment of this educational intervention is limited to the first six months of life, it is undoubtedly a period of great vulnerability due to the many concerns and questions that parents face, often for the first time[17]. Most medical consultations in this period are usually a consequence of the lack of experience of caregivers, rather than a consequence of real health problems[18], though sometimes there may be a real health problem requiring immediate medical attention. For a healthcare professional, telling apart unimportant from important is an everyday task[19].

Several models are under consideration to address this saturation status: triage systems[20], telephone consultation[21], mobile applications[22], and different information and communication technologies[23]. But apparently the number of consultations is not decreasing, and their adequacy is not improving.

A model of group health education is proposed in this research project, necessary to respond to some child health problems which cause the overuse of paediatric health services[24]. The aim is to help to solve the problem by providing tools to potential users of paediatric services which allow them to make sound decisions about their children's health.

The results of health educative interventions are wide ranging. They have been shown to be useful in multifaced interventions in specific diseases, in encouraging physical activity and good physical condition in children and teenagers[12], use of contraceptives in women at high pregnancy risk[11], improvement of health outcomes in disadvantaged groups[10], lowering the rate of alcohol binge-drinking episodes in the college students[25], etc. However, the effects of prenatal training for pregnancy, delivery, or maternity/fatherhood are unclear; more studies with longer-term follow-up are required[13].

This Health Education Program is aimed at pregnant women and their partners, during a period of life when motivation is high. One out of three pregnant women who received information attended the workshops in this study, but we don't know why the others declined participation (work or home duties, lack of interest, forgetfulness, midwife recruiting process concerns, etc.). The features of participating pregnant women included: first-time mothers, high mean age, college training and active employment status. When compared to the control group, it shows that the pregnant woman profile interested in this type of training activities includes lower number of children (first-timers, particularly) and those with a higher educational level. Both facts might be considered a study limitation; however, apparently these facts did not impact the level of previous knowledge of the parents under study. The level of knowledge before the workshop was very similar in both groups; it did not vary depending on the number of children (as might be expected), and only small differences were found regarding the educational level of participants. Besides, it is logic to think that both factors may be offset in the results; on one side, a higher academic level implies more knowledge, skills, and experiences; on the other, being a first-timer has the opposite effect.

Another interesting aspect is the influence of gender: fathers attend much less often than mothers, and most attending fathers are first-timers; are mothers the only responsible ones for their children's health? First-time couples are also more prone to attend, may be due to the lack of knowledge and the need of training, along with a higher availability because they don't have more children under their care.

When analysing the answers, most wrong ones were given regarding the question about the use of health services: more than half of respondents believe that parents go to the emergency room because they fear that their child has a serious disease (though they are usually unimportant disorders), and a quarter thinks that most consultations to an emergency room service are suitable. A high level of ignorance is noted as well regarding the question on ARI: many future parents were unaware that mucolytic and antitussive agents are scarcely efficient when treating these conditions. This kind of surveys help healthcare professionals to detect training gaps in future parents and allow them to insist on educational issues.

Overall, the assessment of the Health Education Program "If it is urgent for you, is it urgent for me?" has been very positive. The degree of satisfaction with each session was very high, with a high participation of mothers. Only the question "Do you believe that the workshop will avoid any visit to your paediatrician or to emergency room?" obtained a lower score. This denotes the parents' fear that their children may have a potentially serious disease, their confidence in health services, and the necessity to work on improving the skills to manage their children's health problems.

The results obtained during the first 6 months of life were also more satisfactory in the group in which the training was carried out. The level of knowledge is higher in the intervention group than in the control group. The pregnant women who attended the sessions acquired more knowledge than expected from everyday practice after their child was born, as it happened in the control group, where the number of children was higher. The program also achieved an improvement in the participants' opinion about the quality of medical care and doctor-patient relationship. Therefore, we may conclude that health education activities after delivery foster the creation of bounds between healthcare professionals and patients, at least in pregnant women. Results cannot be withdrawn from male population due to the small sample size.

Regarding the record of consultations, almost half of them were related with issues studied in the sessions. We agree with other paediatric studies[26,27] that the most frequent reason of consultation is respiratory problems, followed by skin problems and fever. Injuries tend to be less relevant in the first 6 months of life; that session could therefore be delayed and be imparted later in development. However, two additional issues should be included: infant colics and cardiopulmonary resuscitation, demanded by families at sessions.

When comparing the number of consultations generated, an evident reduction is observed both globally and for each condition under study, except for gastroenteritis. Also, the level of adequacy is 16,3% better in pregnant women in the participating group. Currently there is no consensus on what is considered a reason for non-urgent consultation. Different studies about the issue are based on different statements defining non-urgent consultations: when no diagnostic or therapeutic tests are needed, when delaying care will not make side effects worse, etc.[17,28,29]. In our study, adequacy/inadequacy criteria used were established through the joint opinions from the participating paediatricians, accounting for medical, psychosocial, and emotional factors.

These positive results regarding the decrease int he number of consultations and the increase in their adequacy, along with the improvement both in satisfaction level and in paediatric knowledge, lead us to clearly recommend the establishment of prenatal educational interventions addressing most common health issues in children, within the care activity of paediatrician in the primary care setting. It is important to bear in mind that this Heath Education Program is a proposal or guideline that different professionals must adapt to their training, interests, objectives, and resources, and to those of the patients.

References

1.Rivas García A, Manrique Martín G, Butragueño Laiseca L, Mesa García S, Campos Segura A, Fernández Iglesia V, Moreno Sánchez R, Aguilar Mulet JM. Frequent users in paediatric emergency departments. Who are they? Why do they consult? An Pediatr (Barc). 2017;86(2):67-75.

2.Luaces Cubells C. Paediatric emergencies: Two ideas for reflection...,two challenges. An Pediatr (Barc). 2017;86:59-60.

3.Arroyo E, Auquer F, Buñuel JC, Rubio ML, Adalid C, Cordón F, et al. Over-attendance at primary care: study of psychological and social factors. Aten Primaria. 1998;22:627-630.

4.Trapero B, Lorenzo S, Alonso B, Pastor V. Evaluación de la adecuación del ingreso y la estancia hospitalaria mediante el Pediatric Adequacy Evaluation Protocol. Rev Calidad Asistencial. 2002;17:624-31.

5.Domingo Garau A, García García J, Luaces Cubells C, Gelabert Colomé G, Pou Fernández J. Criterios de adecuación de ingresos en urgencias pediátricas. An Pediatr (Barc.) 2004;61(5):442-54.

6.OMS. Carta de Ottawa para la Promoción de la Salud. Ginebra, 1986.

7.Ministerio de Sanidad, Servicios Sociales e Igualdad. Guía para la implementación local de la Estrategia de Promoción de la Salud y Prevención en el SNS. Madrid, 2015.

8.Astray L, Aguiló E, Beller A, Lozano M, Montaner I, Reyes C, y col. ¿Cómo iniciar un proceso de intervención y participación comunitaria desde un centro de salud? De la reflexión a las primeras intervenciones. SemFYC. PACAP. Madrid. 2ª Edición. 2005.

9.Marchioni M. Comunidad, participación y desarrollo. Teoría y metodología de la intervención comunitaria. Madrid. Editorial Popular. 2001.

10.O'Mara-Eves A, Brunton G, Oliver S, Kavanagh J, Jamal F, & Thomas J. The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis. BMC Public Health, 2015:15, 129.

11.Wilson A, Nirantharakumar K, Truchanowicz EG, Surenthirakumaran R, MacArthur C, & Coomarasamy A. Motivational interviews to improve contraceptive use in populations at high risk of unintended pregnancy: A systematic review and meta-analysis. European Journal of Obstetrics Gynecology and Reproductive Biology. 2015; 191, 72-79.

12.Ling J, Robbins LB, & Wen F. Interventions to prevent and manage overweight or obesity in preschool children: A systematic review. International Journal of Nursing Studies. 2016:53, 270-289.

13.Guía de promoción de la salud para agentes comunitarios. Instituto Madrileño de la Salud Área 1 de Atención Primaria [en línea]. Available at:https://saludcomunitaria.files.wordpress.com/2007/01/guia-de-promocion-de-salud.pdf.

14.Ansa A, Begue R, Cabodevilla J, Echauri M, Encaje S, Montero P, Pérez MJ, Segura M, Zubizarreta B. Guía educativa para trabajar con grupos de padres y madres. Pamplona: Gobierno de Navarra, 2004.

15.Gagnon AJ, Sandall J. Individual or group antenatal education for childbirth or parenthood, or both. Cochrane Database of Systematic Reviews 2007, Issue 3. Art. No.: CD002869. DOI: 10.1002/14651858.CD002869.pub2.

16.Vázquez ME, Nuñez C, Serrano E. Programa de educación para la salud sobre el uso racional de las urgencias pediátricas y actuación ante los principales problemas de salud ¿Si es Urgente para ti, es urgente para mí? [online]. 2015. Available at: https://www.aepap.org/grupos/grupo-de-educacion-para-la-salud/biblioteca/programa-de-eps-sobre-el-uso-racional-de-las-urgencias-pediatricas.

17.Fornes Vivas R, Mustienes Bellot R, Navarro Juanes A, Robledo Díaz L, Carvajal Roca E. Is the use of the Emergency Service in neonatal period appropriate? Rev Pediatr Aten Primaria. 2017; 19:301-9.

18.Subdirección General de Información Sanitaria e Innovación. Los Sistemas Sanitarios en los Países de la UE: características e indicadores de salud, 2013 [Internet Publication]. Madrid: Ministerio de Sanidad, Servicios Sociales e Igualdad 2014. Available at: http://www.msssi.gob.es/estadEstudios/estadisticas/sisInfSanSNS/tablasEstadisticas/Ind.Sist.Sanit.UE.XXI.htm

19.Grupo de Trabajo de Indicadores de Calidad de la Sociedad Española de Urgencias de Pediatría. Emergency departments: pediatric quality indicators as a guide to quality assurance. An Pediatr (Barc). 2004;60:569---80.

20.Loscertales Abril M, Alonso Salas M, Cano Franco J, Charlo Molina T. Importancia de la clasificación en la atención del niño que acude a una consulta de urgencias. Servicio de Cuidados Críticos y Urgencias. Hospital Infantil HHUVR Sevilla.

21.García de Ribera MC, Bachiller Luque MR, Vázquez Fernández M, Barrio Alonso MP, Hernández Velázquez P, Hernández Vázquez AM. Paediatric emergency triage in Spanish primary care using mobile phones. Analysis of a model in a health area. Rev Calid Asist. 2013;28(3):174-180.

22.García de Ribera, MC; Bachiller Luque, MR; Vázquez Fernández, ME, M; Barrio Alonso, MP; Del Río López, AM; Hernández Velázquez, P; Hernández Vázquez, AM. Health education through a pediatric mobile phone application. Rev Calid Asist. 2014;29:364-5.

23.Vázquez Fernández ME, González Hernando C, Sanz Almazán M, García Alonso MM, Ruiz Labarga C, Calvo Bayón P. Technology 2.0 at the service of maternal and child health. Acta Pediatr Esp. 2016: 74(3-4):e63-e65.

24.Piñeiro Pérez R, Muñoz Archidona C, de la Parte Cancho M, Mora Sitjà M, Hernández Martín D, Casado Verrier E y cols. Frequent users in Paediatric Emergency Departments: are parents solely to blame? Rev Pediatr Aten Primaria. 2017; 19:137-45.

25.Bhochhibhoya A, Hayes L, Branscum P, & Taylor L. The use of the internet for prevention of binge drinking among the college population: A systematic review of evidence. Alcohol and Alcoholism. 2015;50(5), 526-535.

26.Fernández Cano G, Martín Carballo G. Paediatric emergencies attended at a primary care clinic (II): epidemiological study. Aten Primaria. 2000; 26(2):81-85.

27.San José González MA, Méndez Fernández P. Consultas de una población pediátrica rural, en un centro de salud, durante el horario de mañana. Aten Primaria. 2006;38(2):128-9.

28.Lapeña López de Armentia S, Reguero Celada S, García Rabanal M, Gutiérrez Fernández M, Abdallah I, González Aparicio H. An epidemiological study of pediatric emergencies in a general hospital. Factors involved in unnecessary emergency consultations. An Esp Pediatr. 1996;44:121-5.

29.Kennedy TJT, Purcell LK, LeBlanc JC, Jangaard KA. Emergency Department use by infants less than 14 days of age. Pediatr Emer Care. 2004;20:437-42.