

# Quality of health information pamphlets – a case study from the Sintra Group of Health Centers (Portugal)

A qualidade dos folhetos informativos sobre saúde — estudo de caso do Agrupamento de Centros de Saúde de Sintra (Portugal)

*La calidad de los prospectos de información sobre salud: un estudio de caso de la Agrupación de Centros de Salud de Sintra (Portugal)*

Andreia Garcia<sup>1</sup> , Mafalda Eiró-Gomes<sup>1</sup> 

<sup>1</sup>Escola Superior de Comunicação Social – Lisboa, Portugal.

## Abstract

**Introduction:** Pamphlets are one of the most commonly used communication tools to provide patients with information. **Objective:** The aim of this study was to analyze the pamphlets collected at a health center responsible for primary health care in Portugal. **Methods:** The analysis was performed by applying the SAM grid. This test is aimed at assessing the suitability of information materials, classifying them as inadequate, adequate or very adequate. **Results:** The pamphlets available in the health unit were very adequate for health promotion and disease prevention. **Conclusions:** The production of information materials, such as pamphlets, usually available in the waiting rooms of health units, should continue to be one of the communication tools developed by the institutions responsible for primary health care in Portugal to provide patients with information. **Keywords:** Primary health care; Health centers; Health education; Health communication.

### Corresponding author:

Andreia Garcia  
E-mail: [agarcia@escs.ipl.pt](mailto:agarcia@escs.ipl.pt)

### Funding:

No external funding.

### Ethical approval:

Not applicable.

### Provenance:

Not commissioned.

### Peer review:

External.

Received: 07/17/2022.

Approved: 11/27/2022.

**How to cite:** Garcia A, Eiró-Gomes M. Quality of health information pamphlets – case study from the Sintra Group of Health Centers (Portugal). Rev Bras Med Fam Comunidade. 2023;18(45):3499. [https://doi.org/10.5712/rbmfc18\(45\)3499](https://doi.org/10.5712/rbmfc18(45)3499)



## Resumo

---

**Introdução:** Os folhetos informativos são um dos instrumentos de comunicação mais utilizados para informar os doentes. **Objetivo:** Pretende-se, assim, analisar os folhetos informativos recolhidos num centro de saúde responsável pela prestação de cuidados de saúde primários em Portugal. **Métodos:** A análise foi realizada com a aplicação da grelha Suitability Assessment of Materials. Esse teste tem como objetivo avaliar os materiais informativos quanto à sua adequabilidade, classificando-os como inadequados, adequados ou muito adequados. **Resultados:** Os folhetos disponíveis nessa unidade de saúde são muito adequados para a promoção da saúde e a prevenção da doença. **Conclusões:** A produção de materiais informativos, como folhetos informativos, usualmente disponíveis nas salas de espera das unidades de saúde, deve continuar a ser um dos instrumentos de comunicação desenvolvidos pelas instituições responsáveis pelos cuidados de saúde primários, em Portugal, para informar os doentes.

**Palavras-chave:** Cuidados de saúde primários; Centros de saúde; Educação em saúde; Comunicação em saúde.

## Resumen

---

**Introducción:** los prospectos son una de las herramientas de comunicación más utilizadas para informar a los pacientes. **Objetivo:** El objetivo de este estudio fue analizar los prospectos recogidos en un centro de salud responsable de la atención primaria en Portugal. **Métodos:** El análisis se realizó aplicando la cuadrícula SAM. Esta prueba tiene como objetivo evaluar la idoneidad de los materiales de información, clasificándolos como inadecuados, adecuados o muy adecuados. **Resultados:** Los folletos disponibles en esta unidad sanitaria son muy adecuados para la promoción de la salud y la prevención de enfermedades. **Conclusiones:** La producción de materiales informativos, como los folletos, que suelen estar disponibles en las salas de espera de las unidades de salud, debe seguir siendo una de las herramientas de comunicación desarrolladas por las instituciones responsables de la atención primaria en Portugal para informar a los pacientes.

**Palabras clave:** Atención primaria de salud; Centros de salud; Educación en salud; Comunicación en salud.

## INTRODUCTION

Information pamphlets are one of the oldest and most commonly used communication tools in health organizations<sup>1</sup> to raise awareness about a certain health topic, with the aim of promoting health and preventing disease, but the evidence that these information materials can change behaviors is scarce.<sup>2,3</sup>

The primary value of this type of information material has always been its tangibility; that is, readers have something to hold in their hands for as long as they want.<sup>4</sup> Information pamphlets also have the advantage of helping people remember the information, and encourage them to share this knowledge with their family, caregivers or friends.<sup>5</sup> They can be effective if conceived in a planned way, that is, intentionally, as Daugherty states: “they must be aimed at a specific audience, convey a key global message, and try to achieve a specific goal”.<sup>6</sup>

However, such materials cannot be tailored to the needs of each individual person and may not be the best way to give complicated instructions. Their information can quickly become out of date, and their understanding depends on the person’s literacy. Moreover, they have high costs related to their production.<sup>7</sup>

One of the main disadvantages of using a pamphlet is that it can be easily ignored or even avoided by the intended audience, simply because there are so many others competing for attention.<sup>3</sup> So, by leaving information pamphlets in a waiting room of a health center, it will not be possible to predict which users will take the pamphlets with them, if they will be able to understand them and if they will change some type of behavior based on the information they read.

With the increasing availability of information on the internet, pamphlets are no longer the only source of written information.<sup>8-10</sup>

However, for Dianne Berry,<sup>11</sup> the production of printed material remains essential, “despite the considerable growth in the availability of computerized health information systems and their access through the Internet”.

Authors such as Adams<sup>12</sup> have identified, for example, that although information about joint pain is available and accessible online, most people of retirement age also like to have small information pamphlets on this topic to take home.

However, the information needs to be of high quality and accessible:<sup>11</sup> “It is clear that patients would appreciate greater availability of information materials, but greater accessibility is of little use if the presentation and content of the materials are deficient”.<sup>13</sup>

A group of 17 experts presented the necessary conditions to increase the quality of information pamphlets on health topics, such as structuring the text with headings and subheadings; explanation of the message and conclusion; using simple and concise sentences; avoiding technical language and abbreviations; and using a font that is easy to read.<sup>14</sup>

In recent years, several studies have been carried out to assess the accessibility, readability (understanding), usability or quality of the contents of these information materials, using various tools to facilitate this assessment, namely the Suitability Assessment of Materials —SAM,<sup>15</sup> which is already validated in Portuguese. SAM is one of the most used tests to analyze the adequacy of information materials<sup>16</sup> and has already been applied in areas such as the prevention of childhood obesity,<sup>17</sup> chronic kidney disease,<sup>18</sup> rheumatic diseases,<sup>19</sup> stroke,<sup>20</sup> physical activity<sup>21</sup> and the promotion of sexual health.<sup>22</sup>

## METHODS

For this work, all printed information materials available in the waiting rooms of the functional units of the Sintra Group of Health Centers (Portugal) were collected in person. Pamphlets prepared by professionals from the aforementioned functional units and those referring to the theme of health promotion and education were included in the evaluation. Materials promoted by laboratories, patient associations and other entities were excluded from the survey. The collection of materials was carried out on December 20, 2019. The visit was repeated the following week, but the existence of different pamphlets was not seen.

From the visits carried out, two pamphlets were identified at the Mãe D'Água Family Health Unit (USF) and three pamphlets at the Mactamá USF.

The SAM instrument was applied, which has already been specifically validated for the analysis of information materials. This test aims to assess the information materials for their suitability, classifying them as inadequate, adequate or very adequate (“top quality”), which corresponds, respectively, to percentage scores of 0–39%, 40–69% and 70–100%. It allows the evaluation of 22 factors or parameters organized into six domains: content; required literacy level; illustrations; layout and typography; stimulation/motivation for learning and cultural adequacy.<sup>15</sup>

After reading the information material, the researchers gave a score according to each of the parameters observed, between 2 points (“very adequate”), 1 point (“adequate”) or 0 point (“inadequate”). When it was considered that a parameter was not relevant to the document, “not applicable” was noted.

At the end of the analysis, scores were calculated (with a maximum of 42 points, equivalent to 100%). For each non-applicable item, 2 points were subtracted from the total score, as recommended by the authors; that is, the calculation no longer focused on 42 points but on the total value without the non-

applicable items. The materials were then considered according to the final percentage value as “very suitable” ( $\geq 70$ ), “suitable” (40–69) or “inadequate” ( $\leq 39$ ). The analysis grid is shown in Table 1.

## RESULTS

At the USF Mãe D'Água, located at the headquarters of the Sintra Group of Health Centers (ACeS), the printed information materials are placed on a display on the wall visible inside the waiting room and on a small table. There are also two displays fixed to the wall with information on opening hours, the names of the doctors, nurses and technical assistants, the parenting preparation course, the basic emergency service or the meetings of Alcoholics Anonymous.

Two pamphlets were for promoting health and preventing disease and aimed at users. The first refers to the topic of smoking and explained the health risks of tobacco, the benefits of giving up smoking and the ten steps that must be followed to quit smoking. The document also warns about the risks of second-hand smoking and encourages smokers to change their behavior (Figure 1).

The second is related to the traveler's office visit and explains when it should be carried out, what they should bring to the consultation, what are the preventive measures according to the characteristics of each country and where such consultation can be carried out, giving the times and respective contacts of the places where the consultation will take place (Figure 2).

We noted that all pamphlets indicated the date on which they were last reviewed and provided USF contacts, as well as opening hours.

On the 1st floor of the Sintra ACeS headquarters, at USF Mactamã, it is possible to observe exhibitors with indication of information for the user and “see here important information for you”, in which one can read, for example, notices related to scheduling appointments, the request for a prescription or the hours of operation, appointments or doctors.

The pamphlets are placed on visible wall displays inside each of the waiting rooms. Three different themes addressed in the printed information pamphlets that the user could take home were identified.

The pamphlet on antibiotics prepared by USF Mactamã explains what these drugs are for, how they act on different bacteria and when they should be taken. It also warns about resistance to antibiotics, its impact on health and how to prevent it (Figure 3).

In the case of the healthy eating pamphlet (Figure 4), the food wheel is presented, a table with the recommended daily portions and doses of, for example, vegetables and fruits, and the ten rules that must be followed daily for eating well. Information sources for additional content are also presented, such as the website of the Association of Obese and Ex-Obese Patients and of Portugal. In the pamphlet on salt consumption (Figure 5), there is a warning about health risks, namely stroke, and recommendations and suggestions are left for users to reduce salt consumption.

Both along the corridors and in the waiting rooms of the unit, there is a variety of information posted on the walls for health promotion and disease prevention, on topics such as the flu, healthy eating, contraceptive methods, physical exercise, antibiotics, screening oncology, heart attack prevention, among others.

In all analyzed materials (Table 2), we found that their purpose or objective was clearly present in the heading, cover illustration or introduction. We also observed, in all information pamphlets, that most of its content encourages the practical application of knowledge or skills to change behavior, such as: “if you are a smoker, change your behavior” or “eat more fish and poultry (without skin) instead of red meat”.

**Table 1.** Suitability Assessment of Materials grid.

<b>Identification of material:</b>		
<b>Parameters</b>	<b>Assessment</b>	<b>Scoring</b>
<b>1. CONTENT</b>		
(a) The purpose is evident	<i>Very adequate:</i> The purpose of the material is clearly stated in the heading, cover illustration or introduction.	2
	<i>Adequate:</i> The purpose of the material is not explicit. It is present only implicitly and/or it has many purposes.	1
	<i>Inadequate:</i> The purpose of the material is not present in any of the mentioned places (heading, cover illustration or introduction).	0
(b) Content refers to behaviors	<i>Very adequate:</i> Most content drives the practical application of knowledge/skills to change behaviors.	2
	<i>Adequate:</i> At least 40% of content refers to behaviors or actions beneficial to health. <i>Inadequate:</i> Almost all content focuses on non-behavioral facts and/or only mentions medical facts.	1 0
(c) Content focuses on the purpose	<i>Very adequate:</i> Content is limited to essential information directly related to the purpose of the material.	2
	<i>Adequate:</i> At least 60% of the information is essential. The main messages can be captured in a reasonable amount of time.	1
	<i>Inadequate:</i> More than 40% of the information is not essential.	0
(d) Content emphasizes the main points	<i>Very adequate:</i> The material includes a summary that explains the main messages using different words or examples.	2
	<i>Adequate:</i> Only some of the main messages are pointed out.	1
	<i>Inadequate:</i> There are no summaries or reviews.	0
<b>2. LITERACY REQUIREMENT</b>		
(a) Writing style	<i>Very adequate:</i> Both direct speech and active voice are used.	2
	<i>Adequate:</i> At least 50% of the text uses direct speech and/or active voice.	1
	<i>Inadequate:</i> Indirect speech and/or passive voice prevails.	0
(b) Vocabulary	<i>Very adequate:</i> Three factors predominate: 1) common words are used; 2) technical and abstract words or concepts are explained with examples; 3) there are no value judgments.	2
	<i>Adequate:</i> At least 50% of the content features the three abovementioned factors.	1
	<i>Inadequate:</i> Less common words and technical terms predominate. Examples are not given for technical words.	0
(c) Context is given before presenting new information	<i>Very adequate:</i> Context is presented before new information is provided at the beginning of sentences.	2
	<i>Adequate:</i> At least 50% of sentences present contextualization at the beginning of sentences.	1
	<i>Inadequate:</i> In more than 50% of sentences, there is no contextualization, or it is presented at the end.	0
(d) Headings and subheadings	<i>Very adequate:</i> Most topics are preceded by headings and subheadings.	2
	<i>Adequate:</i> At least 50% of topics are preceded by headings or subheadings.	1
	<i>Inadequate:</i> Headings and subheadings are rare or non-existent.	0
<b>3. ILLUSTRATIONS</b>		
(a) Cover illustration	<i>Very adequate:</i> Cover illustration has three factors: 1) it is user-friendly; 2) attracts attention; 3) clearly demonstrates the purpose of the material.	2
	<i>Adequate:</i> Cover illustration has one or two of the abovementioned factors.	1
	<i>Inadequate:</i> Cover illustration does not present any of the abovementioned factors.	0

Continues.

Table 1. Continuation.

<b>Identification of material:</b>		
<b>Parameters</b>	<b>Assessment</b>	<b>Scoring</b>
(b) Type of illustrations	<i>Very adequate:</i> There are two factors present: 1) simple line drawings appropriate for adults are used; 2) the illustrations represent familiar elements, easily recognized by readers.	2
	<i>Adequate:</i> At least one of the abovementioned factors is present.	1
	<i>Inadequate:</i> None of the abovementioned factors are present.	0
(c) Relevance of illustrations	<i>Very adequate:</i> The illustrations present the main messages visually, without too many distractions.	2
	<i>Adequate:</i> At least one of these factors is present: 1) the illustrations include some distractions; 2) there are insufficient illustrations.	1
(d) Lists, tables, graphs, charts, geometric shapes	<i>Inadequate:</i> At least one of these factors is present: 1) the illustrations are technical or confusing; 2) there are no illustrations or too many.	0
	<i>Very adequate:</i> The illustrations have detailed instructions, such as examples.	2
	<i>Adequate:</i> Only some illustrations show instructions, or the instructions are too brief or incomplete.	1
(e) Captioned illustrations	<i>Inadequate:</i> The illustrations lack instructions or explanations.	0
	<i>Very adequate:</i> The illustrations are almost always captioned.	2
	<i>Adequate:</i> Only some illustrations are captioned.	1
(a) Features of the layout	<i>Inadequate:</i> The illustrations do not have captions.	0
	<b>4. LAYOUT AND TYPOGRAPHY</b>	
	<i>Very adequate:</i> At least five of the following factors are present: 1) the illustrations are well located (next to the text they refer to; 2) the sequence of the information is consistent; 3) visual cues are used to attract the reader's attention to a specific content; 4) there is adequate blank space; 5) the use of colors is not distracting; 6) sentences are between 30 and 50 characters with spaces; 7) there is a great contrast between text and paper; 8) the paper is a little glossy or not at all.	2
(b) Typography (size and type of font)	<i>Adequate:</i> At least three of the abovementioned factors are present.	1
	<i>Inadequate:</i> Two or less of the abovementioned factors are present. The information does not look inviting or seems difficult to read	0
	<i>Very adequate:</i> The four factors are present: 1) uppercase and lowercase letters are used; 2) the font size is at least 12; 3) boldface and/or different font colors and sizes are used to emphasize key messages; there is no abusive use of uppercase letters.	2
(c) Subheadings	<i>Adequate:</i> At least two of the abovementioned factors are present.	1
	<i>Inadequate:</i> None of the abovementioned factors are present, and more than six font types are used on a page.	0
	<i>Very adequate:</i> Both factors are present: the lists are grouped under descriptive subheadings or in blocks; 2) no more than five topics are presented without a subheading.	2
(a) Interaction used	<i>Adequate:</i> There are no more than seven topics without a subheading.	1
	<i>Inadequate:</i> More than seven topics are presented without a subheading.	0
	<b>5. STIMULATION/MOTIVATION FOR LEARNING</b>	
(b) Guidelines are specific and give examples	<i>Very adequate:</i> Questions or exercises are presented for the reader to undertake.	2
	<i>Adequate:</i> Passive interaction is used in the question-answer format.	1
	<i>Inadequate:</i> There is no interaction (neither active nor passive).	0
(b) Guidelines are specific and give examples	<i>Very adequate:</i> The information provides concrete instructions and describes behaviors and actions.	2

Continues.

Table 1. Continuation.

Identification of material:		
Parameters	Assessment	Scoring
(b) Guidelines are specific and give examples	<i>Adequate:</i> There is some information that is too technical, which may raise questions about its application in everyday life. <i>Inadequate:</i> The information is very theoretical and not very concrete.	1 0
(c) Motivation	<i>Very adequate:</i> Complex topics are subdivided into easier parts so that the reader can understand the information and act on it. <i>Adequate:</i> Some of the topics are subdivided. <i>Inadequate:</i> None of the topics are subdivided.	2 1 0
<b>6. CULTURAL ADEQUACY</b>		
(a) Logic, language and experience	<i>Very adequate:</i> The central concepts of the material manifest a culture similar to the logic, language and experience of the Portuguese population. <i>Adequate:</i> At least 50% of the central concepts are suitable for the Portuguese population. <i>Inadequate:</i> There is a clear mismatch between the cultural content of the information and the Portuguese population.	2 1 0
(b) Cultural image and examples	<i>Very adequate:</i> The images and examples presented portray Portuguese culture in a positive light. <i>Adequate:</i> There is a neutral presentation of cultural images. <i>Inadequate:</i> There are images that portray the characteristics of Portuguese culture in a negative way.	2 1 0
<i>Inadequate (0); adequate (1); superior quality (2); not applicable (N/A)</i>		
<b>(A) TOTAL (Sum of all factors)=</b>		<b>42</b>
<b>(B) –MAXIMUM SCORE</b>		
<b>(C) – NUMBER OF N/A ANSWERS = ____ X2=</b>		
<b>(D=B-C) – ADJUSTED MAXIMUM SCORE =</b>		
<b>PERCENTAGE (A/D* 100) =</b>		
<b>INTERPRETATION: 0–39% (inadequate), 40–69% (adequate) and 70–100% (very adequate).</b>		

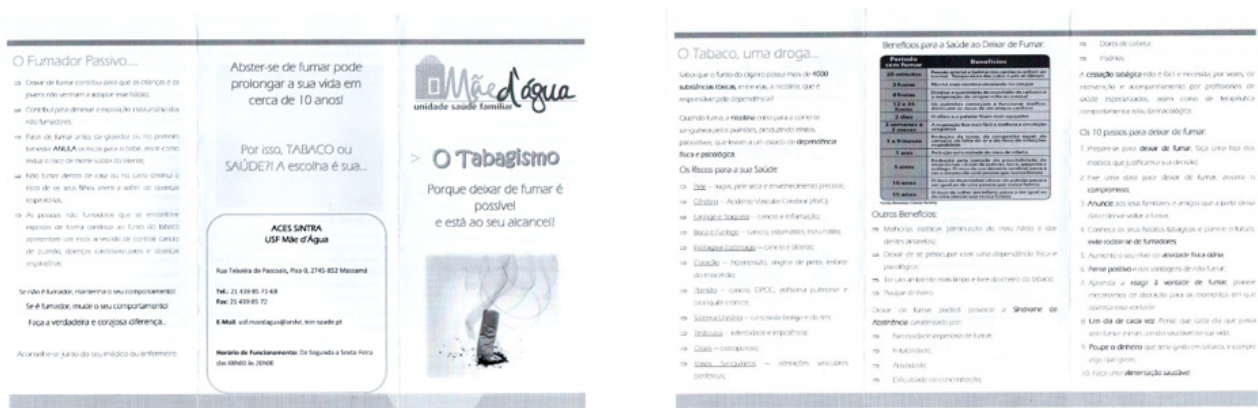


Figure 1. Smoking pamphlet.

In the pamphlets analyzed, the content was limited to essential information directly related to its purpose, and we observed that the main messages are summarized or highlighted. Thus, we considered that, with regard to content, the analyzed materials were very adequate.

Regarding the style of writing, direct speech and active voice were not always present, that is, present together in the same material; the most used was the active voice, visible in expressions such as

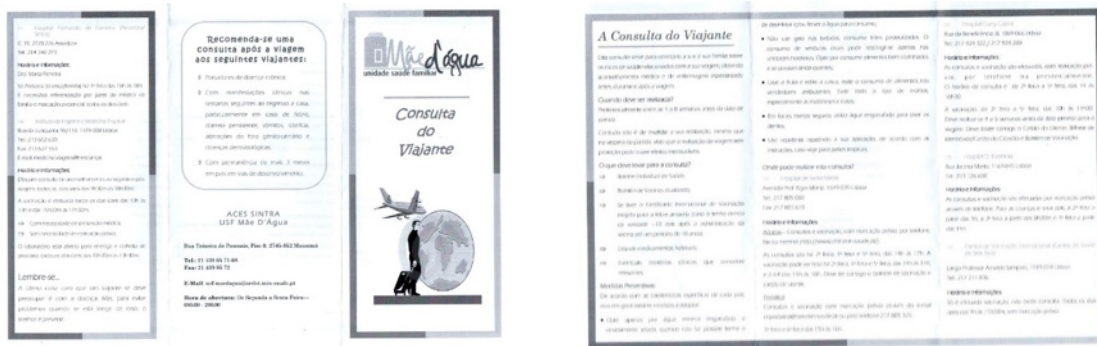


Figure 2. Traveler Office Visit pamphlet.



Figure 3. Antibiotics pamphlet.

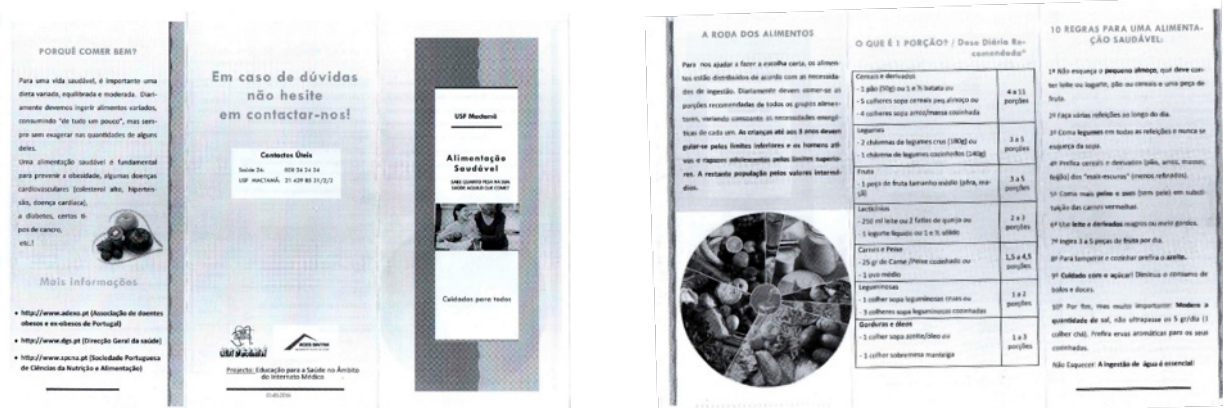


Figure 4. Healthy Eating pamphlet.



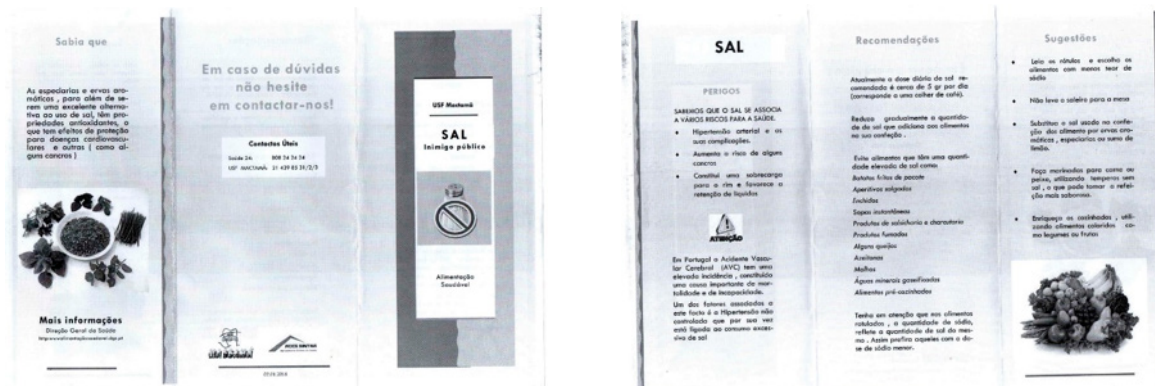


Figure 5. Public Enemy Salt pamphlet.

Table 2. Analysis of pamphlets.

	Pamphlet: Traveler office visit	Pamphlet: Smoking	Pamphlet: Healthy eating	Pamphlet: Public enemy salt	Pamphlet: Antibiotics
	Scoring	Scoring	Scoring	Scoring	Scoring
1. Purpose is evident	2	2	2	2	2
2. Content refers to behaviors	2	2	2	2	2
3. Content focuses on the purpose	2	2	2	2	2
4. Content highlights main points	2	2	2	2	2
5. Writing style	2	1	2	1	0
6. Vocabulary	1	1	2	1	1
7. Context given before providing new information	2	2	2	2	2
8. Headings and subheadings	2	2	2	2	2
9. Cover illustration	1	1	1	1	1
10. Type of illustrations	1	1	1	1	1
11. Relevance of illustrations	1	1	1	1	1
12. Lists, tables, graphs charts, geometric shapes	N/A	1	2	N/A	N/A
13. Captioned illustrations	0	1	0	0	0
14. Layout features	1	1	2	1	2
15. Font type and size	2	2	2	2	2
16. Subheadings	2	2	2	1	2
17. Interaction used	2	0	2	2	0
18. Guidelines are specific and give examples	2	2	2	2	2
19. Motivation	2	2	2	2	2
20. Logic, language and experience	2	2	2	2	1
21. Cultural image	1	2	2	2	1
Total	32	32	37	31	28
Formula	32/40x100	32/42x100	37/42x100	31/40x100	28/40x100
Percentage (%)	80	76.2	88	77.5	70
Interpretation	Very adequate	Very adequate	Very adequate	Very adequate	Very adequate

“read the labels and choose foods with less salt content”. Only the USF Mactamã healthy food pamphlet had a question on its cover: “Do you know how much what you eat weighs on your health?”. This captures the user’s attention.

Most of the pamphlets analyzed had adequate vocabulary, with a predominance of common words; the context of new information was presented at the beginning of sentences, and topics were preceded by headings or subheadings to facilitate learning.

Pamphlet cover illustrations were appropriate and clearly demonstrated the purpose of the material. However, no material presented the three necessary factors to be considered very adequate in this variable, that is, having a friendly image, attracting attention and demonstrating its purpose. Only the information pamphlet on healthy eating had a friendly photograph as its cover illustration, with a mother and daughter. In all other cases, the information promoter chose to use an illustration using icons.

We also found that the materials presented either adult-appropriate drawings or illustrations that represented familiar elements, easily recognized by readers. In the traveler office visit and smoking pamphlets there were insufficient illustrations, as only the cover had an illustration.

Most information pamphlets did not have tables, graphs, charts or geometric shapes. Only the healthy eating and smoking pamphlets had a table. The pamphlets were mainly made up of text. In cases where there were illustrations, these did not have captions or explanations.

With regard to the layout and typography, we found the following features: the materials were adequate and that the illustrations were well located (next to the text to which they refer); the sequence of information was consistent; the use of colors was not a distraction; the paper was only a little glossy or not at all; and most of the sentences were between 30 and 50 characters with spaces. We also noted that the use of uppercase and lowercase letters was very appropriate; the font used was at least size 12; boldface or different font sizes were used to emphasize key messages, and there was no capital abuse.

The analyzed pamphlets encouraged learning with the interaction used, presenting exercises or behaviors for the reader to undertake, such as: “don’t take the salt shaker to the table” or “save the money you would have spent on tobacco and buy something you like”.

All materials presented specific guidelines and described concrete actions and behaviors. We also noticed a concern to divide the more complete topics into easier parts so that the reader could understand the information and act on it.

In the cultural adequacy variable, we emphasize that at least 50% of the core concepts were suitable for the Portuguese population and that the images and examples presented represent Portuguese culture in a positive way.

## DISCUSSION

The production of information materials, such as pamphlets, usually available in the waiting rooms of functional units, continues to be one of the most frequently used communication tools by institutions responsible for primary health care in Portugal to provide patients with information.

From the analysis carried out on these communication resources in Sintra ACeS, we can consider that the information pamphlets available were very adequate (presenting values greater than 70%). We noted, however, that the sample was small and that it could not be generalized to all the information materials that may be available in ACeS in Portugal.

We also consider it pertinent to include, in future research, the analysis of information materials by users/patients and their families, to assess their suitability. It will also be relevant to understand whether users/patients consider such materials useful and whether they motivate them to change their behavior.

## CONCLUSION

A significant proportion of the factors that can lead to diseases are related to behaviors that can be influenced through communication. Primary health care is a suitable “place” to act at this level of “improving the health of the population, and fighting health inequalities, due to its population coverage and almost free service”<sup>15</sup>.

In Portugal, the provision of primary health care has been the responsibility of the ACeS since 2008, the year in which they were created (Decree-Law No. 28/2008). To fulfill its mission, the ACeS develop, among other measures, health promotion and disease prevention activities.

When analyzing the data collected in the empirical investigation, we found that the pamphlets prepared by the ACeS were classified as very adequate. It seems that these traditional communication tools can continue to make sense, but it is necessary to assess whether users find them useful and whether the materials motivate them to change their behavior.

Piotrow and his colleagues<sup>23</sup> commented 20 years ago that communication was no longer just understood as a product — a poster or a pamphlet —, but rather as a strategic process that goes beyond the operational level and must be aligned with the decision-making process.

As a future perspective, we need to analyze the communication carried out by ACeS and respective functional units in Portugal.

## CONFLICT OF INTERESTS

Nothing to declare.

## AUTHORS' CONTRIBUTIONS

AG: Conceptualization, Data curation, Research, Methodology, Resources, Writing – original draft, Writing – review and editing. MEG: Supervision, Validation, Writing – review and editing.

## REFERENCES

1. Doak CC, Doak LG, Root JH. Teaching patients with low health literacy. 2<sup>nd</sup> ed. Pennsylvania: J. P. Lippincott Company; 2012.
2. Gal I, Prigat A. Why organizations continue to create patient information leaflets with readability and usability problems: an exploratory study. *Health Educ Res* 2005;20(4):485-93. <http://doi.org/10.1093/her/cyh009>
3. Bass S, Parvanta C, Fleisher L. Health communication: strategies and skills for a new Era. Burlington: Health Foundation; 2020. p. 107-48.
4. Corcoran N. Communicating health: strategies for health promotion. London: SAGE Publications; 2013.
5. Lewton KL. Public relations in health care: a guide for professionals. 3<sup>rd</sup> ed. London: Jossey-Bass; 2008.
6. Forth Valley Primary Care Nhs Trust. Developing written information for patients good practice guidelines [Internet]. 2003 [accessed on Sep. 10, 2020]. Available at: <https://media.tghn.org/articles/trialprotocoltool/SOURCE/Extras/TrialRecruitment/InfoGuide.pdf>
7. Daugherty E. Pamphletin. In: *Encyclopedia of Public Relations*. 2<sup>nd</sup> ed. London: SAGE Publications; 2013. p. 637-8.
8. Brito DV, Garcia A. Posicionamento digital das unidades de saúde pública em Portugal continental em 2019. *Comunicação Pública* [Internet]. 2020;15(29):1-12. <https://doi.org/10.4000/cp.11297>

9. Evans D, Coutsaftiki D, Fathers CP. Health promotion and public health for nursing students. London: Learning Matters Ltd; 2011.
10. Garcia A, Eiró-Gomes M. O papel da comunicação: a utilização das redes sociais nos cuidados de saúde primários. *Comunicação e sociedade* 2020;197-217. [http://doi.org/10.17231/comsoc.0\(2020\).2747](http://doi.org/10.17231/comsoc.0(2020).2747)
11. Berry D. Health communication: theory and practice. Buckingham: McGraw-Hill Education; 2007.
12. Adams J, Whale E, Walker D-M, Parsons L, Wilson N. What factors do people with joint pain feel are important in designing and developing community information-based self-management approaches? A patient and public engagement report: Important factors in the self-management of joint pain. *Musculoskeletal Care* 2017;15(2):167-71. <http://doi.org/10.1002/msc.1158>
13. Coulter A, Entwistle V, Gilbert D. Informing patients – an assessment of the quality of patient information materials. *Health Expect* 1998;2(2):138-9. <http://doi.org/10.1046/j.1369-6513.1999.0040c.x>
14. Barrio IM, Simón-Lorda P, Melguizo M, Molina A. Consenso sobre los criterios de legibilidad de los folletos de educación para la salud. *An Sist Sanit Navar* 2011;34(2):153-65. Available at: <http://doi.org/10.4321/s1137-66272011000200003>
15. Luk A, Aslani P. Tools used to evaluate written medicine and health information: document and user perspectives: Document and user perspectives. *Health Educ Behav* 2011;38(4):389-403. <http://doi.org/10.1177/1090198110379576>
16. Goes AR, Câmara G, Loureiro I, Bragança G, Saboga Nunes L, Bourbon M. «Papa Bem»: investir na literacia em saúde para a prevenção da obesidade infantil. *Rev Port Saúde Pública* 2015;33(1):12-23. <http://doi.org/10.1016/j.rpsp.2015.01.002>
17. Morony S, McCaffery KJ, Kirkendall S, Jansen J, Webster AC. Health literacy demand of printed lifestyle patient information materials aimed at people with chronic kidney disease: Are materials easy to understand and act on and do they use meaningful visual aids? *Journal of Health Communication [Internet]*. 2017;22(2):163-70. <http://doi.org/10.1080/10810730.2016.1258744>
18. Rhee RL, Von Feldt JM, Schumacher HR, Merkel PA. Readability and suitability assessment of patient education materials in rheumatic diseases. *Arthritis Care Res (Hoboken)* 2013;65(10):1702-6. <http://doi.org/10.1002/acr.22046>
19. Hoffmann T, Ladner Y. Assessing the suitability of written stroke materials: an evaluation of the interrater reliability of the suitability assessment of materials (SAM) checklist. *Topics in stroke rehabilitation*. 2012;19(5):417-22. <http://doi.org/10.1310/tsr1905-417>
20. Vallance JK, Taylor LM, Lavalley C. Suitability and readability assessment of educational print resources related to physical activity: implications and recommendations for practice. *Patient Educ Couns* 2008;72(2):342-9. <http://doi.org/10.1016/j.pec.2008.03.010>
21. Corcoran N, Ahmad F. The readability and suitability of sexual health promotion leaflets. *Patient Educ Couns* 2016;99(2):284-6. <http://doi.org/10.1016/j.pec.2015.09.003>
22. Mendes F, Duarte-Ramos F, Barros H, Ferreira PL, Gaspar R, Santana R. Meio Caminho Andado. Relatório Primavera 2018. 2018 [accessed on Jul. 12, 2022]; Available at: <http://dspace.uevora.pt/rdpc/handle/10174/24170>
23. Piotrow PT, Rimon JGI, Payne Merritt A, Saffitz G. Advancing health communication: The PCS experience in the field. Baltimore: Johns Hopkins Bloomberg School of Public Health; 2003.