

411 Applicability of Information and Communication Technologies (ICTS) in a secondary hospital Pelvic Floor Consultation. Final Study

Cornet, A¹; López A¹; Allué N²; Sanjuán, A¹.

¹Gynaecology and Obstetrics Department. Hospital de Mollet (Barcelona).

²Epidemiology Department. Hospital de Mollet (Barcelona)



HYPOTHESIS / AIMS OF STUDY

Information and Communication Technologies (ICTS) are implementing in the vast majority of fields, including health. There are reviews analyzing the impact that the use of ICTS may cause, such as **centralizing patients' health, improving health quality and increasing sanitary education**, not only of patients but also of nursing and medical professionals (1).

On the one side, the Gynaecology Department of our secondary hospital has no data of the regular ICT use of our patients. On the other hand, our Department does not currently use any ICT tool. There is current bibliography validating web-based questionnaires (WBQ) comparing them to a questionnaire done at the first appointment (2) (3). We consider the use of this tool may bring advantages to our Pelvic Floor consultation and contribute to a more efficient and satisfactory first visit. Firstly, we aim to have data about the use and level of confidence in ICT among Gynaecology patients of our hospital, according to social variables (**Study A**). Secondly, we would like to assess the effects of an ICT tool in a Gynaecological Pelvic Floor consultation, in terms of quality of first visit (satisfaction), efficiency (time for first visit) and level of knowledge on basic Pelvic Floor diseases (**Study B**).

STUDY DESIGN, MATERIALS AND METHODS

Study A: *cross-sectional descriptive study* about the ICT use among our patients. A paper survey was designed and offered to patients attending Emergency Room for any gynaecological disease, Pelvic Floor or General Gynaecology consultation and Urodynamics office. We set a sample size of **400 surveys**. A descriptive analysis of all items was done.

Study B: *intervention experimental study* with convenience sampling. **52 patients** in the intervention group filled in a WBQ and received basic Pelvic Floor information links before the first appointment. The WBQ was designed on the hospital website with our Systems Department support (**Figure 1**). **52 patients** in the control group attended the regular first appointment without the on-line process. A paper survey about satisfaction and Pelvic Floor knowledge was designed, which was completed by each patient after the first face-to-face appointment. A prospective comparative study was done between intervention and control groups. To start with, we proceeded to a descriptive analysis of quantitative and qualitative variables. In the second place, we focused on the possible associations between **quality of first visit** (satisfaction), **efficiency** (time of first visit) and **level of knowledge** on basic Pelvic Floor diseases, comparing both groups. In both studies, data from surveys was collected by Google Forms and exported to Excel, with a final analysis by PASW Statistic v.19.

FIGURE 1

TABLE 1

Variable	Value
AVERAGE AGE	54+/-12,64 years
LEVEL OF STUDIES	29,2% Primary Studies, 22,2% part of Secondary Education
INTERNET USE	52,6% daily, 25,3% never
HEALTH-RELATED INTERNET USE	54,4% no, 43,6% (Searched for health information, Booked electronic appointments)
LEVEL OF CONFIDENCE ON INTERNET INFORMATION	75,8 % low
MOST USED ICT DEVICES	92,3% smartphones, 43,3% computer
DOCTORS PROVIDING INTERNET INFORMATION	83,8% do not

TABLE 2

Variable	INTERVENTION GROUP	CONTROL GROUP	SIGNIFICANCE
AVERAGE AGE	60,1 (SD 12,5) years	64,5 (SD 8,9) years	0,038
MEASURED TOTAL MEAN TIME IN CONSULTATION	19,36 +/- 4,96 min	21,19 +/- 4,96 min	NO
PERCEIVED TOTAL MEAN TIME IN CONSULTATION	15,86 (SD 4,3) min	15,5 (SD 5,4) min	NO
SATISFACTION ITEMS	No differences on information items and professional stress / speed at first visit		NO
KNOWLEDGE : POP DEFINITION (only correct answers)	20 (38,5%)	9 (17,3%)	0,04
KNOWLEDGE : UI DEFINITION (only correct answers)	43 (82,7%)	29 (55,8%)	0,003
KNOWLEDGE: CLAS SIFICATION OF UI (only correct answers)	6 (11,5%)	1 (1,9%)	0,001



RESULTS

Study A: The most outstanding results are shown on **Table 1**. The best scored ICT tools by patients in terms of usefulness were the use of video conferences or email communication.

Study B: The most outstanding results are shown on **Table 2**.

The **most important differences** are (% of more correct answers):

-11% in favour of the **intervention group** in relation to **POP definition (IC 95% 0,07-0,30)**

-25% in favour of the **intervention group** in relation to **UI definition (CI 95% 0,08-0,42)**

-23% in favour of the **intervention group** in relation to **UI classification (CI 95% 0,09-0,37)**



INTERPRETATION OF RESULTS

To start with, it is important to highlight the limitations of this study which make it unlikely to extrapolate our findings to the general population: method of randomization and sample size. Related to the first, we found that our patients had difficulty in handling themselves with internet use so a simple randomization process was proven difficult. As for the second, the principal investigator works in Pelvic Floor consultation once every two weeks with an average of 4 first visits and 20 successive visits. Therefore, the number of recruited patients in one year time could not be very high. As for our results, it seems **our WBQ may contribute in improving the first consultation in terms of patient knowledge**. It is important to highlight that the use of this tool may not shorten the time of first appointment. At the same time, it may not improve patient satisfaction. At a systematic level, this study helps to have an idea of what impact may cause a WBQ before the first Pelvic Floor appointment. It would be important to consider these kind of tools in our regular practice. Other articles concluded that a WBQ contributed to a slightly more efficient use of the first consultation and a better registration of pelvic floor functioning (3).

CONCLUDING MESSAGE

Whether or not the results prove statistically significant and the benefits of WBQ remain unclear, **it is important to consider the use of ICT tools and introduce them in medical consultation**. Further research should focus in the benefits of ICTS such as improving patient satisfaction and communication.

REFERENCES

1) Rouleau G, Gagnon MP, Côté J, Payne-Gagnon J, Hudson E, Dubois CA. Impact of Information and Communication Technologies on Nursing Care: Results of an Overview of Systematic Reviews. J Med Internet Res. 2017 Apr 25;19(4)

(2) Egger MJ, Lukacz ES, Newhouse M, Wang J, Nygaard I. Web versus paper-based completion of the epidemiology of prolapse and incontinence questionnaire. Female Plevic Med Reconstr Surg. 2013 Jan-Feb;19(1):17-22

(3) Selina Posthuma, J. Marinus van der Ploeg, Britt A. H. van Etten-deBruijn, David P. van der Ham. Time efficiency of a web-based questionnaire in urogynecology: a randomized study. Int Urogynecol J. 2016 Apr;27(4):621-7

ACKNOWLEDGEMENTS

Gynaecology and Obstetrics Department in Hospital de Mollet (Barcelona).
Natàlia Allué (Epidemiology Department in Hospital de Mollet)
Marina Pujol (Communication Department in Hospital de Mollet)
Jaume Guillamón (Technical Department in Hospital de Mollet)

CONTACT INFORMATION

Dr. Ariana Cornet
ariana.cornet.cortada@gmail.com