

Asthma patients are willing to use mobile and web technologies to support self-management

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Key words: asthma; Internet; mobile phone; patient-centered care; self-management.

Practical problems and patients' or doctors' low compliance has been hampering a wider use of self-management in asthma.

Mobile or web technologies for supporting self-management may improve patient–doctor communication

and patient self-efficacy (1, 2). Furthermore, recent evidence suggests that interactive Internet-based asthma monitoring improves asthma control (3). However, patients may not be willing to use a web asthma diary for more than short periods, possibly because it does not fit into their everyday lives (4). The use of mobile phones has been suggested

Moderate to severe patients want asthma self-management based on communication technologies.

to overcome this problem (4, 5), but, to our knowledge, no data are available on the willingness of patients to use mobile phones, and very few data have been reported on their willingness to use the web for asthma self-management (6).

In the framework of a running randomized controlled trial on psycho-educational interventions in asthma, 74 adults with moderate to severe asthma were randomly allocated to fill a symptoms diary for 1 month. Of these, 37 dropped-out of the trial and the remaining 47 (63%) completed a self-administered questionnaire about asthma monitoring. These two groups did not differ significantly regarding age, education, socio-economic status, and asthma severity.

Approximately one-third was younger than 31 years and half was older than 40 years; 84% were female; nearly 70% had low socio-economic background (class IV and V) and 44% had 5 or fewer years of formal education. FEV1 predicted % was below 80% in 53%, while 64% were treated with high-dose inhaled steroids. During the previous year, 56% had at least one exacerbation requiring oral steroids and one in five was admitted to a hospital because of their asthma.

Only 28% had ever self-monitored asthma before entering the study. However, none of the patients referred

unwillingness to monitor their asthma in the future, and 56% of them were strongly in favor to its use; furthermore, one-third of patients were happy to monitor their symptoms daily, whereas another third preferred to do it less than once a week. Also, one in five considered it was easy to forget to register symptoms in the paper diary, and all patients considered it to help them better understand their disease.

The proportions of referred willingness to use mobile or web technologies to support self-management are described in Table 1.

There were no significant associations between willingness to use mobile or web technologies and patient's sex, age, education level, socio-economic status, tobacco usage, other chronic diseases, and duration and severity of asthma.

Caution is needed in the generalization of these results as the patients who were studied were mostly middle-aged women with low education, and low socio-economic background, who had moderate to severe asthma followed at secondary care.

Nevertheless, a large majority of patients seem willing and ready to use communication technologies such as mobile phones and the Web to help them manage their asthma. Are the doctors and the health administrators also ready to test the effectiveness of this

Table 1. Percentages of patients who are willing to use mobile phones or the Web with different purposes, according to their accessibility to those technologies

Purpose of use	Willingness to use					
	Mobile phone			Web		
	All (n = 46)	Access (n = 36)	No access (n = 10)	All (n = 41)	Access (n = 16)	No access (n = 25)
Information about asthma	85	91	50	55	79	37
Self-monitoring of asthma	83	91	43	55	79	37
Information about their medication	83	88	50	53	77	37
Exchanging messages with doctor	79	93	79	52	85	30