

A prospective audit examining non-attendance at a surgical outpatients clinic in Mater Dei Hospital, Malta, after the introduction of a text-messaging reminder system

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Abstract

Non-attendance rates at hospital outpatients clinics has always proved to be a serious problem. Missed appointments cause delays in patient management, impacting patient outcomes. Mater Dei Hospital introduced a text-messaging reminder system in July 2017 in an attempt to reduce non-attendance rates and this study assesses the efficacy of this system. Four surgical outpatients clinics were observed over a period of one month and the total number of appointments documented. Non-attenders were contacted via a telephone call and asked to explain their non-attendance as well as asked if they had received a text-message reminding them of their appointment.

Out of a total of 227 appointments (205 females, 22 males), 49 patients did not turn up, representing a 22% non-attendance rate. Out of these 49 patients, 41 answered their phone and were interviewed for this study. The rest were not reached because a contact number was not in their physical and electronic records (2 patients) or they did not answer their phone at all (6 patients). Out of the 41 contacted, 39% claimed they did not receive a text message reminding them about their appointment whilst acknowledging that they all have a functional mobile phone and they know how to receive and read a text message.

This study shows that non-attendance rates of 30%² decreased by 27% to 22% after the introduction of text-messaging. It is hoped that this system will further decrease not attendance rates if more patients have a registered mobile phone number in the hospital electronic records system.

Keywords

Outpatients, Text-message, Non-attendance

Introduction

The demand for outpatient consultation services at Mater Dei Hospital is increasing year by year.³ The increasing demand for a high level of healthcare, increase in population, increased life expectancy and technological developments all continue piling more pressure on our healthcare services, putting a strain on Mater Dei's resources. This lengthens outpatient waiting lists and the situation is made worse by a high rate of no-shows. Studies carried out at Mater Dei Hospital in 2016 noted that 20% of the scheduled appointments for five clinical specialities under review did not turn up.³ This phenomenon is also seen abroad.¹ The commonest reasons cited in literature have been noticed to be independent of speciality and include

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forgetfulness, working commitments, confusion over date, illness and transportation.⁴

In 2014 an audit was performed in our clinic showing that there was a 30% non-attendance rate and the authors suggested the introduction of a text-messaging reminder system to improve attendance levels.²

Initiatives were recently introduced at Mater Dei to improve attendance rates at outpatients. These included phoning patients before their scheduled appointment in August 2016, and the introduction of the text-messaging reminder system, which was started in July 2017. The latter was shown to reduce such no-shows to 11% from an average of 22% in the targeted areas but despite such achievements, the non-attendance rate remains disturbing and continues to negatively influence Mater Dei's logistical and operational arrangements and increase waiting times.³

This study set out to determine the non-attendance rate at the surgical outpatients clinic and to compare it to the non-attendance rate in a previous study and also to assess how many patients received messages and the reasons why patients who received a message still missed their appointment. We also studied the number of patients who notified the outpatients that they would not attend and whether this led to the appointment being re-allocated to another patient.

Method

The study was conducted at Mater Dei Hospital, Malta and approved by both the local audit committee and by the data protection management. Data from four weekly outpatient clinics of a general surgical firm with a specialist interest in breast surgery was collected. The total number of patients listed in each clinic was documented together with the nature of their appointment (new care or follow up), patient's age and sex. Patients who had failed to attend were then contacted via telephone and they were verbally consented to participate in a questionnaire. They were then asked if they had received a text-message reminding them of the appointment, whether they had notified the surgical outpatients department of their non-attendance from beforehand and the reason why they had failed to attend. Confidentiality was emphasised to all patients. Patients' contact details were obtained from their electronic records and if they had failed to answer

or did not have any contact details available electronically, their physical records were obtained, to search for alternative contact details.

Results

Out of a total of 227 appointments (205 females and 22 males, mean age of 54 years) to attend one of the four outpatient clinics analysed for this study, 49 failed to attend, representing a 22% non-attendance rate. Follow up cases had a higher rate of non-attendance compared to new cases (80% vs 20% respectively).

Out of 49 patients who failed to turn up for their appointment 41 were contacted via telephone, all of whom agreed to take part in the short questionnaire over the phone. The rest couldn't be reached because there were no contact details available (both electronically or on the patient's paper file) or they did not answer their phone. Out of the 41 contacted, 39% (19 patients) claimed they did not receive a text message reminding them about their appointment whilst they all acknowledged that they have a functional mobile phone and they know how to receive and read a text message. Out of these 19 patients who did not receive the text-message, only 3 were new cases.

Only 39% of all the non-attendees contacted the surgical outpatients department from beforehand and postponed their appointment to another date. 22% (9 patients) did not know at all about the appointment and 12% (5 patients) forgot completely about the appointment. Seven patients knew about their appointment but they could not make it and did not inform anyone.

Discussion

Mater Dei Hospital introduced the automated text-messaging system in June 2017 with all patients scheduled to have an outpatient appointment receiving the text-message ten days and also two days before. Contact details are obtained from 'CPAS Patient Master Index', which is the patient database which the Ministry of Health uses across all its hospitals, health centres and other patient services. All text-messages are in English and contain name of clinic, date and time, initials of name and surname and locality. Mater Dei's contact number is also included.

A similar study to this one carried out in 2014, documented a non-attendance rate of 30%.² In 2017, just a couple of months after the text-

messaging system was introduced, a performance audit carried out by the National Audit Office on Mater Dei noted an 11% decrease in the non-attendance rate, concluding that the new initiative is successful. This study has shown that non-attendance rates of 30% decreased by 27% to 22% in this clinic after the introduction of the text-messaging reminder system.²

It was noted that patients who could not keep their appointment and contacted the hospital to reschedule remained on the clinic list. Unfortunately these appointments were not reallocated to another patient. The system would be more efficient if these slots were used up but it may be difficult to do so at short notice.

Nearly 39% (with a mean age of 53 years) of all the non-attendees claimed that they did not receive a text-message from Mater Dei Hospital reminding them of their appointment. It is possible that some of these may have forgotten or they were reluctant to own up. However it does raise an alert that the hospital needs to keep mobile telephone numbers updated on the electronic records system. Wards and outpatient clerks should be reminded to update these records after every patient visit. It might also be possible to share a database with telephone service providers if this does not contravene data protection legislation.

In 2015, Mater Dei Hospital incurred an expenditure of €204 million with an estimated €32.2 million spent on the outpatient department.³ It was estimated that the average cost to provide a consultation visit as an outpatient costs around €3.18 euro per minute, depending on the speciality. Literature shows that a text-messaging system is very effective in reducing non-attendance rates as well as is the most cost-effective way of doing so when compared to letters or phone calls.⁵ The expense of each text-message could not be obtained due to contractual obligations but it can be assumed that such expense compares very well to what has been documented in other studies, and this can be extrapolated to be cost effective when it has proven to increase attendance rates.

The limitations of this study are that it was conducted over only four clinic sessions and it was restricted to a single cohort of patients. It is also possible that the improved attendance rate was due to other factors besides the text-messaging system e.g. the introduction of the patient's charter mentioning patient responsibility.

Conclusion

A previous study showed a 30% non-attendance rate and suggested the introduction of a text messaging reminder system.¹ The system was introduced and this study showed a 27% decrease in non-attendance to 22% at the same clinic. The authors suggest that all patients' mobile telephone numbers are added to the electronic database. When patients call to reschedule their appointments the cancelled appointment should be re-allocated to improve efficiency of the clinic.

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