

Full Length Research Paper

Strategies to minimize missed appointments in general surgical out-patient clinics

Awe J.A.A^{1*} and Saimeh H²

¹Associate Professor of Surgery and Consultant General Surgeon, Department of Surgery; College of Health Sciences, Igbinedion University; Okada; Edo State. Nigeria.

²Senior Surgical Registrar, Northern Area Armed Forces Hospital, King Khalid Military City, Hafr Al-Batin 31991, Saudi Arabia.

Accepted 25 September, 2020

Non-compliant with outpatient appointments are a drain on resources. It is a common source of inefficiency in any health service, wasting time and resources and potentially lengthening waiting lists unnecessarily. Studies examining characteristics of non-attendance at hospital outpatients have given inconsistent results. Given the current economic climate, methods needed to be employed to reduce non-attendance. The commonest reasons for non-attendance given include patient at work 250 cases (25%); forgot the appointment 200 cases (20%); no transport 125 cases (12.5%) living outside Military barrack 200 cases (20.0%); fear of having an operation 100 cases (10.0%); lost appointment 50 cases (5%) and no reason 30 cases (3.0%). We undertook this prospective study asking non-attenders at the surgical outpatient clinics of two Consultant Surgeons for a period of one year from 1st April 2007 to 31st March 2008 why they missed their appointments in view of the above findings. Reduction in the incidence of non-attendance could be achieved through institutional factors of giving correct appointment details, communication between hospital and patients should be checked meticulously and found to be correct before appointments are handed over to the patients. There should be adequate counseling by medical social workers in allaying fears of patients regarding the phobia of undergoing operations. Also significant improvement in the proportion of patients attending outpatient's appointments can be made by simple reminder telephone calls one to three days before the actual appointment date; and short message service (SMS) text messages to patient's mobile telephones.

Keywords: Incidence, Non-Attendance, Surgical Outpatient, Clinic.

INTRODUCTION

For many people, the outpatient clinic is the first point of contact with a hospital. The patient's charter states that patients have a responsibility to attend outpatient appointments or to notify the hospital if they are unable to

do so.

Non-attendance at outpatient clinics although common, has received relatively little attention (Cornfield et al., 2008; Andrews et al., 1990; Lloyd et al., 1993; Turner, 1991; Bottomley and Cotterill, 1994) when reviewing the available literature on this subject.

Non-attendance without notification has substantial financial costs for Health Authorities and may have

*Corresponding Author E-mail: doset2007@yahoo.com

clinical implications as well to the non-attenders. This will lead to delay in making a diagnosis which invariably could lead to avoidable ill health (Government Statistical service, 1994-95; Committee of Public accounts 42nd report, 1995; Stone et al., 1999; Cawley and Stevens, 1987).

Studies examining characteristics of non-attendance at hospital outpatients have given inconsistent results (Murdock et al., 2002; Herrick et al., 1994); and this is what has stimulated us to look into this common but very important issue in the surgical out-patient clinics of our health facility, the Northern Armed Forces Hospital, King Khalid Military City Hafr Al-Batin, Saudi Arabia.

A total of six thousand one hundred and forty 6140 patients were supposed to attend the clinics during the audit period 4183; cases (68.1%) attended, while 1957 cases (31.9%) did not attend. These 1957 cases were billed to be subjected to questionnaires; but only 1000 patients could be contacted and this was carried out through telephone calls; short message service (SMS) text messages and by direct questioning at subsequent surgical out-patient department attendance (Burgoyne et al., 1983; Ritchie et al., 2000; Roberts et al., 2007; Festinger et al., 2002; Wylie et al., 2005).

In the current study we obtained a response rate of 51.09%.

Failure to attend the clinics appears to be due to some factors such as inadequate communication between the hospital and patients, forgetting the appointments; lack of clarity when appointments are handed over to patients; fear of having an operation and even in some cases no obvious reason for non-attendance.

Non-attendance is not only peculiar to surgery, it affects all other specialties such as medicine, general practice, dentistry, radiology etc (Potamitis et al., 1994; Samanta et al., 1991; Casey et al., 2007; Kruse et al., 2009).

Our place of practice where this audit was undertaken poses another peculiar situation where female patients cannot transport themselves to the hospital except by either the husband or a very close male relative coupled with the fact that there are no public transport systems.

All these have therefore led to unnecessary lengthening of outpatient waiting lists (Turner, 1991); and this indirectly means under-utilization of the available manpower and health facility equipments.

MATERIALS AND METHODS

A retrospective analysis of 6140 patients scheduled to attend the Surgical Outpatient Department serving a population of about 100,000 of Northern Area Armed Forces Hospital, King Khalid Military City, Hafr Al-Batin, Saudi Arabia was undertaken from 1st April 2007 to 31st March 2008; a period of one year.

In all, two Consultant surgical clinics were involved in the study; 4183 patients (68.1%) attended while 1957 cases (31.9%) did not attend. The clinic saw both review and new patients that were referred by general practitioners.

The non-attendees were mainly questioned either by making a telephone call usually carried out by males for male patients and by females for female patients either at home or at work or by direct questioning at subsequent surgical outpatient department attendance as the case may be.

The patients were assured that their questioning would in no way affect their management.

Recorded was patient's reason for referral, whether new or follow-up patients, why patient did not keep his or her appointment and if they intend to re-attend the clinic.

The answers to the questions were initially collected on a data sheet before being transferred to Microsoft Excel for detailed analysis and documentation.

RESULTS

A total of six thousand one hundred and forty 6140 patients were supposed to attend the clinics during the audit period.

4183 cases (68.1%) attended, while 1957 cases (31.9%) did not attend.

These 1957 cases were billed to be subjected to questionnaires.

1000 (51.09%) patients could be contacted, while 957 (48.91%) cases could not be contacted.

The questionnaires were carried out through telephone calls and short message service (SMS) text messages and by direct questioning at subsequent surgical out-patient department attendance giving (51.09%) response rate.

800 were males while 200 were females giving a male to female ration of 4:1.

The mean age of patients was 44 years (range 18-70) years.

2.5% of those questioned said they would attend if their appointments were renewed.

The commonest reasons for non-attendance given include patient at work 250 cases (25%); forgot the appointment 200 cases (20%); no transport 125 cases (12.5%), living outside Military barrack 200 cases (20.0%); fear of having an operation 100 cases (10.0%); lost appointment 50 cases (5%) and no reason 30 cases (3.0%).

They are as outlined on table 1 below.

This being a Military Hospital, some patients were on compulsory military duty at the time of their appointments and this also led to inability of some females to attend since according to the culture, females must be brought to hospital either by their husbands or a very close male

Table 1

Reasons	Non-Attendees (n = 1000)
1. Patient at work	250 (25%)
2. Forgot the appointment	200 (20%)
3. No transport	125 (12.5%)
4. Living outside Military Base	120 (12%)
5. Tired because of work	105 (10.5%)
6. No reason	50 (5%)
7. Lost appointment	50 (5%)
8. Renewed appointment	25 (2.5%)
9. Another appointment at the same time	25 (2.5%)
10. Fear of having an operation	50 (5%)

Table 2

Reason	No
Biliary disease	80
Altered bowel habit	20
Pilonidal disease	240
Bleeding per rectum	160
Anorectal pain with discharge	200
Epigastric abdominal pain	10
Breast lumps	90
Neck swellings	50
External hernias	50
Lumps and bumps	100

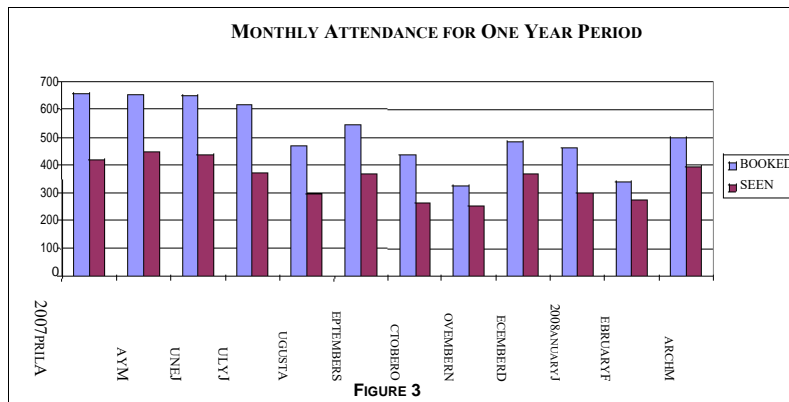


Figure 1

relative.

Table 2 Above indicates the tentative diagnoses for non-attenders.

Another interesting issue is out-patient attendance during the holy month of Ramadan and summer vacation periods.

A review of figure 1 reveals low attendance around the months of July and August which is approximately the usual summer vacation period when the military personnel and their families travel outside this non-

permanent residential military city to visit their extended families that are living in other parts of the country.

The second and third observations on figure 1 where low attendance are observed are around mid-October to mid-November as well as late January till early February which represent the Holy month of Ramadan and Hajj periods respectfully.

During these three periods, patients tend not to attend or postpone their hospital appointments except under exceptional medical emergencies.

DISCUSSION

Studies examining characteristics of non-attendance at hospital outpatients have given inconsistent results (Murdock et al., 2002; Gatrad, 2000); and this is what has stimulated us to look into this common but very important issue.

There appears to be some common factors such as inadequate communication between the hospital and patients, forgetting the appointments by non-attendees when compared with previously published literature.

These results suggest that attendance is primarily determined by logistical, appointment details and social factors rather than illness severity (Barron, 1980; Bean and Talaga, 1992; Sharp and Hamilton, 2001).

Factors such as patient on military duty and cannot abandon his duty post or even allowed time off to bring his wife to the hospital; forgot the appointment entirely; no available transport; living outside the military base; longer interval between referral and appointment; fear of having an operation and some patients had no reason were some factors responsible for non-attendance.

In this study our rate of non-attendance was 31% which is a bit higher than that of the United Kingdom survey carried out during the period 1996-97 by the Department of Health (Government Statistical service, 1994-95).

The category of patients who claimed to forget or had no reason for not attending which is a total of 25% could safely be judged that their illnesses were not severe enough and ascribed to be due to apathy.

It should be remembered that non-attendance is not only confined to our clinics; it spans over other specialties and also influenced by which body supports the finances of such patients. This has no relevance in our audit because medical treatment is free in this country.

For some patients inadequate or vague communication between the hospital and patients was noticed when the appointments were given, however majority of patients show a responsible attitude to attendance when appointments were properly made and handed correctly to them (Herrick et al., 1994; Frankel et al., 1989).

Also a significant improvement in the proportion of patients attending outpatient's appointments can be made by a simple reminder telephone call one to three days before the actual appointment date (Roberts et al., 2007; Wylie et al., 2005) a reduction rate was achieved from 24% to 14% by Bigby et al in 1983.

The other issue to be taken into consideration in reducing incidence of non-attenders is to look critically whether some of them actually need a follow-up or maybe they got well and did not see any reason to attend any follow-up. For first time attenders, Bowman et al, 1996 showed that shorter waiting times gave better attendance rates.

A reduction in non-attendance was achieved by Garton et al in 1992 when patients were actually asked to make their own appointments and confirm their intention to

attend. We find in our review and set-up that this is not practicable and will be a strain on hospital resources and personnel.

Regarding the issue of transportation especially for patients outside the military base, cost of transportation as well as lack of public transport should be taken into consideration (Lacy et al., 2004; Pennys and Glaser, 2001).

Females are not allowed culturally to travel on their own without being accompanied by their husband or a close male relative. Whenever the husband or male relatives are not immediately available to take the female patients to the hospital, such female patients will not keep their appointments.

It is a well known fact that clinics should expect a certain proportion of patients not to attend. Some have therefore suggested overbooking but the argument against overbooking made by Sharp and Hamilton (Hamilton et al., 1999) is that it could be counterproductive since 100% attendance puts pressure on both patients and staff and that appointment times would rarely be met. However overbooking could be a temporary solution that could be immediately implemented without major expenditure.

Reduction in the incidence of non-attendance by institutional factors regarding correct appointment details and adequacy of communication between hospital and patients should be checked meticulously and found to be correct before appointments are handed over to the patients (Waghorn and McKee, 2000).

Recently the ease with which large numbers of messages can be customized and sent by short message service (SMS) text messages to patient's mobile telephones on attendance at outpatient clinics along with its availability and comparatively low cost, could also be a suitable means of improving patient attendance (Burgoyne et al., 1983; Ritchie et al., 2000).

There is probably little one can do regarding patient's apathy, cultural beliefs and attitude as well as institutional religious obligations of a particular society when considering issue of attendance.

Some are looking into some form of electronic booking system co-opting both the patient and the general practitioner to arrange an appointment for an exact date and time to suit the patient to reduce non-attendance. Whether this will reduce non-attendance rates remains to be seen (Mirotnik et al., 1998; Hamilton et al., 2002).

In summary we suggest avoidance of ambiguous and unclear appointments, institution of reminder mobile telephone calls or SMS text messages two (2) to three (3) days before scheduled clinic appointments, allaying fears of undergoing surgical operations and some of the attendant complications by medical social workers as well as improvement of the transportation system could reduce the incidence of non-attendance in surgical outpatient clinics. Overbooking could be a short term remedy in improving non-attendance.

REFERENCES

- Andrews R, Morgan JD, Addy DP, Mcneish AS (1990). Understanding Non-attendance in outpatient Paediatric clinics. *Arch. dis. child.* 65: 195-5.
- Barron WM (1980). Failed appointments, who misses them, why they are missed and what can be done. *Prim. Care.* 7: 563-574.
- Bean AG, Talaga J (1992). Appointment breaking: causes and solutions. *J. Health Care Mark.* 12: 14-25.
- Bigby JB, Giblin J, Pappius EM, Goldman L (1983). Appointment reminders to reduce no-show rates. *JAMA.* 250: 1742-1745.
- Bottomley WW, Cotterill JA (1994). An audit of the factors involved in new patient non-attendance in a dermatology out-patient department. *Clin. Exp. Dermatol.* 19(5): 399-400.
- Bowman RJC, Bennet HGB, Houston CA, Aitcheson TC, Dutton GN (1996). Waiting times for and attendance at Paediatric Ophthalmology outpatient appointments. *BMJ.* 313: 1244.
- Burgoyne RW, Acosata FX, Yamamoto J (1983). Telephone prompting to increase attendance at Psychiatric outpatient Clinic. *Am. J. Psychiatry.* 140: 345-347.
- Casey RG, Quinlan MR, Flynn R, Grainger R, McDermott TE, Thornhill JA (2007). Urology out-patient Non-attenders: Are we wasting our time? *Ir. J. Med. Sci.* 176: 305-308.
- Cawley ME, Stevens FM (1987). Non-attendance at outpatient clinics at the Regional Hospital, Galway, Ireland. *Soc. Sci. Med.* 25(11): 1189-1196.
- Committee of Public accounts 42nd report. National Health Service in England and Wales. London: Stationery office, 1995.
- Cornfield L, Schizas A, Noorani A, Williams A (2008). Non-attendance at the Colorectal Clinic: A prospective audit. *Ann. R Coll. Surg. Engl.* 90: 377-80.
- Festinger DS, Lamb RJ, Marlowe DB, Kirby KC (2002). From telephone to office: Intake attendance as a function of appointment delay. *Addict. Behav.* 27:131-137.
- Frankel S, Farrow A, West R (1989). Non-admission or Non-invitation? A case-control study of failed admissions. *BMJ.* 299: 598-600.
- Garton MJ, Togerson DJ, Donaldson C, Russell IT, Reid DM (1992). Recruitment methods for screening programmes: trial of a new method within a regional osteoporosis study. *BMJ.* 305: 382.
- Gatrad AR (2000). A completed audit to reduce hospital outpatient non-attendance rates. *Arch. Dis. child.* 82: 59-61.
- Government Statistical service, Department of Health. Outpatient and Ward-attenders, England, Financial year 1994-95. London: DoH.
- Hamilton W, Round A, Sharp D (1999). Effect on hospital attendance rates of giving patients a copy of their referral letter. *BMJ.* 318: 1392-1395.
- Hamilton W, Round A, Sharp D (2002). Patient, hospital, and general practitioner characteristics associated with non-attendance: a cohort study. *Br. J. Gen. Pract.* 52(477): 317-319.
- Herrick J, Gilhooly MI, Geddes DA (1994). Non-attendance at Periodontal Clinics: forgetting and administrative failure. *J. dent.* 22: 307-309.
- Kruse LV, Hansen LG, Olesen C (2009). Non-attendance at a Pediatric outpatient clinic. SMS text messaging improves attendance. *Ugeskr Laeger.* 171: 1372-1375.
- Lacy NL, Paulman A, Reuter MD, Lovejoy B (2004). Why we don't come: Patient perceptions on no shows. *Ann. Fam. Med.* 2: 541-545.
- Lloyd M, Bradford C, Webb S (1993). Non-attendance at outpatient clinics: Is it related to the referral process. *Fam. Pract.* 10: 111-117.
- Mirotnik J, Ginzler E, Zagon G, Baptiste A (1998). Using the health belief model to explain clinic appointment keeping for the management of a chronic disease condition. *J. Commun Health.* 23: 195-210.
- Murdock A, Rodgers C, Lindsay H, Tham TC (2002). Why do patients not keep their appointments? Prospective study in a gastroenterology outpatient clinic. *J. R. Soc. Med.* 95: 284-286.
- Pennys NS, Glaser DA (2001). The incidence of cancellation and non-attendance at a Dermatology clinic. *J. Am. Acad. Dermatol.* 44: 313-314.
- Potamitis T, Chell PB, Jones HS, Murray PI (1994). No-attendance at Ophthalmology outpatient Clinics. *J. R. Soc. Med.* 87: 591-593.
- Ritchie PD, Jenkins M, Cameron PA (2000). A telephone call reminder to improve outpatient attendance in patients referred from the emergency department: a randomized controlled trial. *Aust. N. Z. Med.* 30(5): 585-592.
- Roberts TS, Meade K, Partridge M (2007). The effect of telephone reminders on attendance in respiratory outpatient clinics. *J. Health Serv. Res Policy.* 12: 69-72.
- Samanta A, Haider Y, Roffe C (1991). An audit of patients attending a General Medical follow-up clinic. *J. R. Soc. Med.* 25: 33-35.
- Sharp DJ, Hamilton W (2001). Non-attendance at General Practices and outpatient clinics. *BMJ.* 323: 1081-1082.
- Stone CA, Palmer JH, Saxby PJ, Devaraj VS (1999). Reducing nonattendance at out-patient clinics. *J. R. Soc. Med.* 92(3): 114-8.
- Turner AG CH (1991). Are patient's attitude the cause of long waiting lists? *Br. J. Clin. Pract.* 45: 97-98.
- Waghorn A, McKee M (2000). Understanding patients' views of a surgical out patient clinic. *J. Eval. Clin. Pract.* 6(3): 273-9.
- Wylie K, Allen P, Hallam-Jones R (2005). An evaluation of a telephone follow-up clinic in urology. *J. Sex Med.* 2:641-644.