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NON-ATTENDANCE RATE TO CHILD AND ADOLESCENT MENTAL HEALTH SERVICES OUTPATIENT CLINICS IN BRUNEI.

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ABSTRACT

Introduction: Non-attendance rate of new referrals to Child and Adolescent Mental Health Services outpatient clinics worldwide can be as high as 28%. This study aimed to assess the non-attendance rate of new referrals and the characteristics of the attendees and non-attendees to Child and Adolescent Mental Health Services outpatient clinics in Brunei Darussalam**. Methods:** This was a retrospective cross-sectional study of non-attendance of all new referrals to Child and Adolescent Mental Health Services outpatient clinics in Brunei. Data were obtained from the clinic records and appointment register. **Results:** Of the 101 referrals analysed, 19.8% did not attend their first appointment. Approximately 90% of the referrals were given appointments within 4 weeks of receiving the referral letters. Attendees to their first appointments were of older age groups (>13 years old) and majority were male. Attendance to first appointment was significantly associated with shorter appointment dates of within 4 weeks (*p=0.0388*). The initial non-attendance rate was further reduced to 9.9% when those who were eventually seen at a rescheduled date were considered. **Conclusion:** The non-attendance rate of first appointment to our Child and Adolescent Mental Health Services outpatient clinics is within the acceptable reported range but decreased further to below 10% when considering attendance to subsequent rescheduled appointment. Teenage male patients with appointment dates within 4 weeks are more likely to attend their appointments.

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INTRODUCTION

Non-attendance to the Child and Adolescent Mental Health Services (CAMHS) outpatient clinics (OPC) has been a significant problem worldwide, with non-attendance rates reported between 15% and 28%.[1-3] In an audit of 7000 successive child and adolescent psychiatry referrals in Scotland, the non-attendance rate was as high as 28%.[2] Skokauskas et. al. reported a much lower rate of non-attendance of 13.07% in Ireland.[4]

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Various interventions have been used to increase attendance at outpatient clinics. These include telephone reminders, text messaging (SMS), letter or postcards.[5] In Brunei, SMS are send to patients a few days before their appointment date to remind them to attend. Opt-in system may further reduce non-attendance at outpatient clinics but requires patients or caregivers to respond to an offer of an appointment and failing to respond could make the patient ineligible to have an appointment.[6] At our CAMHS-OPC, the nurses communicate with the patients or caregivers by phone and collectively decide on the dates agreed.

It is believed that many children and adolescents referred to CAMHS-OPC in Brunei Darussalam do not attend their first appointments. However, there has been no formal study up till now which objectively assesses this non-attendance rate. Thus the aim of this study was to determine the non-attendance rate of first-contact appointments at our CAMHS-OPC. Secondary objectives were to measure the actual non-attendance rate taking account of attendance at subsequent rescheduled appointments and the characteristics of attendees and non-attendees such that future interventions can be setup to target the non-attendees.

METHODS

CAMHS at Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital consist of a child and adolescent psychiatry outpatient clinic run by a consultant and a medical officer and home- and school-visiting services led by a nurse.[7] This was a retrospective cross-sectional medical records review of non-attendance of all new referrals to CAMHS-OPC received and offered appointment from September 1, 2017 to August 31, 2018. Those who were re-referred within the study period were excluded. All patients' referrals received but offered appointment after August 31, 2018 were also excluded. This study was conducted as part the Department of Psychiatry annual audit project of non-attendance rate. Permission to conduct the audit was obtained from the Head of Department of Psychiatry, RIPAS Hospital.

Demographic data taken from the medical record include age, gender, and ethnicity. The data taken from the appointment register include dates of first appointment, the dates that the referral was received and days to first appointment offered (<30 days or ≥ 30 days), whether the appointment was attended or not. Attendance dates were documented in the CAMHS-OPC appointment register and in the electronic Brunei Health Information Management System (Bru-HIMS). Non-attendance for the purpose of this study was defined as the failure to attend the first appointment date. All the patients who failed to attend their first appointment dates were contacted by the nurses by phone a week after the initial appointment dates and were given a new date. Attendances to subsequent appointments were recorded.

All data collected were tabulated into Microsoft Excel spreadsheet (Microsoft, USA) for statistical analysis. Data were presented as frequency and percentage. Fisher exact test was carried out to compare variables of interest such as age, gender, ethnicity and days to first appointment from time referrals received between attendees and non-attendees. P values of <0.05 is indicative of statistical significance.

RESULTS

There were 107 referrals who were given appointment dates from September 1, 2017 to August 31, 2018. Six patients however were previously referred and were excluded. The remaining 101 patients who were newly referred were analysed. Table I compares the characteristics between attendees and non-attendees at the first appointment. Twenty patients did not attend their first appointments giving a non-attendance rate of 19.8% (Table I). Ninety patients were given appointment date less than 30 days from time of referrals and of these, 75 (83.33%) attended their first appointment. Of those who attended their first appointments, more than two-thirds were older than 13 years of age and more than half were males. For non-attendees more than half were of female gender and older. There was a significant association between attendees and non-attendees with regards to waiting time to appointment date (Table I: *p=0.0388*). There were no significant differences between age (*p=0.3807*), gender

Table I: Characteristics of attendees and non-attendees to their first appointment

Characteristics	Attendees (N=81)	Non-attendees (N=20) [#]	p[¥]
Age (years)	12.96 ± 4.14	14.05 ± 3.22	
0 – 12	31 (38.3%)	5 (25%)	0.3807
13 – above	50 (61.7%)	15 (75%)	
Gender			
Male	46 (56.8%)	9 (45.0%)	0.4531
Female	35 (43.2%)	11 (55.0%)	
Waiting time to appointment dates			
<30 days	75 (92,6%)	15 (75%)	0.0388
≥30 days	6 (7.4%)	5 (25%)	
Ethnic groups			
Malay*	64 (79.0%)	17 (85.0%)	0.7565
Chinese & Others**	17 (9.9%)	3 (15%)	

[#] 10 patients eventually attended on a reschedule date.
[¥]Fisher Exact Test.
***These include the indigenous Malay ethnic groups (i.e. Belait, Dusun, Kedayan, Murut, Tutong and Bisaya).**
****** Chinese, Iban and other foreigners.**

(*p=0.453*), and ethnicity (*p=0.7565*) of attendees tendees and non-attendees to their first appointments.

All 20 non-attendees were contacted by CAMHS-OPC nurses and given new appointment dates with 10 out of 20 (50%) eventually attended on the reschedule dates. If we consider those who were eventually seen at CAMHS-OPC after rescheduling, the actual non-attendance rate was 9.9%.

DISCUSSION

The non-attendance rate of 19.8% at the CAMHS-OPC at RIPAS Hospital lies someway in the middle between rates reported in literature.[2,3] The approaches taken by our nurses at CAMHS-OPC may explain the low non-attendance rate at the CAMHS outpatient clinic at RIPAS Hospital. The nurses, upon receiving referral letters, contact the families by phone and collectively decide on a suitable date for the first appointment to see a doctor. This approach is like the opt-in system, whereby parents or caregivers respond to the offer of an appointment. There is evidence that non-attendance rates declined from 27% to approximately 4% when opt-in systems are introduced.[6] By having the CAMHS-OPC nurses again directly contacting the non-attendees and giving them rescheduled appointment, we were able to further encourage 50% of the non-attendees to attend at subsequent appointment and hence reduce the final non-attendance rate to just 9.9% which is a lot lower than reported rates in literatures.[1-4]

Our CAMHS-OPC uses an electronic health information system called Bru-HIMs which sends out SMS reminder a few days before the actual appointment dates to remind patients of their upcoming appointment. Using an SMS reminder system sent to patients to remind them of their upcoming appointment a few days before the actual appointment have been shown to reduce non-attendance rate. [5,8] Unfortunately data for this variable were not collected in Bru-HIMs and hence not evaluated in this retrospective study.

Several studies in the United States have reported that those who failed to attend their appointments had to wait longer for an appointment.[8,9,10] In our study nearly 90% of the referrals were given appointment within 4 weeks or within 29 days upon receipt of the referrals. From this 90%, 83% attended their appointments. This was the only significant variable in our study, where non-attendees were generally given longer appointment dates 30 days or more. Since our appointment system gives out appointment dates based on agreement by the parents or patients, those who accepted longer appointment dates may be those who were unlikely to attend even though SMS reminders were sent out to them by Bru-HIMs. This may also explained the low non-attendance rate in our study, as 90% were given appointments within 4 weeks.

Baruch et al reported that older children attended clinics more often than the younger ones.[11] This finding was reflected in our study where nearly two-thirds of the attendees were adolescents. There is over representation of the Malays and males in this sample when compared with the national demographic data.[12] There were no significant differences between the attendees and non-attendees with regards to these two variables.

The major limitation of this study is the sample size. It might not be possible to compare meaningfully, the attendees and non -attendees, as the sample of non-attendees was too small. Future studies should determine whether the degree of engagement of the parents or the caregivers with the nurses during the phone contact offering the appointment might help to reduce non-attendance.

In conclusion, the non-attendance rate at CAMHS-OPC in Brunei is low and can be reduced further by ensuring engagement of our nurses to ensure the non-attendees are given a second appointment and encouraging them to attend. The process of setting the appointment date, and the short waiting time for the appointment are factors that can help to reduce the non-attendance rate.

DISCLOSURE

All authors have made substantial contribution to the manuscript. The authors do not declare any financial or conflicts of interest in preparing this manuscript.

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