GETTING THROUGH THE FRONT DOOR: IMPROVING INITIAL APPOINTMENT ATTENDANCE AT A MENTAL-HEALTH CLINIC

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ABSTRACT

When clients fail to arrive for their initial appointments, the result is wasted clinician and clerical time and effort. The present study attempted to find a cost-efficient way to reduce initial appointment no-show rates in a children's community mental-health clinic. Four types of reminder letters were compared to each other and to a system whereby forms were completed and returned prior to appointment setting. Results showed that all interventions reduced the no-show rate significantly, that all reminder letters worked equally well, and that use of forms was significantly better than letters in reducing the no-show rate. All approaches were considered cost-efficient. Results are discussed in terms of commitment required for form responses, and suggestions are made for future research.

Clients who fail to show for appintments result in wasted clinicians' time and extend appointment waiting lists unnecessarily. In our community mental-health clinic the average first appointment no-show rate had been 21.2% from January, 1985, to December, 1986. Neither administration nor staff were comfortable with this rate. Clinicians could not make their best use of this free time since it was unpredictable and even more time was wasted in contacting and rescheduling no-show clients. This resulted in wasted time, costs, and energy.

First-appointment clients were the focus of this study. Frankel and Hovell (1978) have indicated that variables resulting in missed subsequent appointments may be different than for first appointment no-shows. For example, crisis abatement and clinician-client relationship variables are more likely factors to be contended with after the first appointment (Oppenheim, Bergman, & English, 1979; Parrish, Charlop, & Fenton, 1986). As well, the clinic was more concerned with its initial appointment no-show rate, which was perceived to be higher than that for subsequent appointments. Thus, the purpose of the study was to find a simple, cost-effective way to reduce the initial appointment no-show rate.

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As will be described, research in this area has been of two types: prediction of no-show through client demographics; and delivery-system manipulation to enhance client attendance.

Research that has explored client demographics has utilized such variables as race, age, sex, education, type of disorder, previous inpatient treatment, and degree of impairment with greater or lesser degrees of success (Barton, 1977; Forman, 1983; Hoffman, 1985; Lowe, 1982; Paolillo & Moore, 1984). Upon closer examination and attempts at replication, these variables have shown little consistent ability to predict no-show behaviour (Dervin, Stone, & Beck, 1978; Kluger & Karras, 1983; Oppenheim et al., 1979; O'Shea & Sears, 1979). Such demographic data, based on U.S. samples and treatment contexts, may be even less predictive for Canadian clients in Canadian treatment contexts, where the client demographics and service delivery structures may differ due to across-the-board socialized medicine.

Thus, rather than attempting to predict who will show, it seemed more useful to intervene with the service-delivery structure, in order to modify no-show behaviour across all groups of clientele. To do this, it became important to ask what kinds of problems may deter clients from keeping appointments, and what are useful interventions for these problems.

Frankel and Hovell (1978) suggest all the problems can be seen in the context of a chain of appointment-keeping behaviours, starting with scheduling the appointment and ending with departure after the appointment. Reinforcements (friendly service, provision of clear clinic information) must outweigh anxiety and inconvenience right from initial agency contact, prior to the first appointment, or a no-show will result. Social exchange theory would suggest that the way to modify social behaviour would be to increase perceived and expected reinforcements (benefits) relative to expected costs (Dillman, 1978). Thus, reinforcements need only be perceived or expected, in order to affect motivation and therefore behaviour. This is important for first appointments, since many actual reinforcements will not be delivered until attendance occurs. Such perceived or actual reinforcements and inconvenience can occur in any of Oppenheim et al.'s (1979) problem categories.

Oppenheim et al. (1979), in a review of the literature, divided these appointment-keeping problems into four categories: *process problems* (office waiting time, little personalization of services, long waiting lists); *patient problems* (poor communication to patient, patient forgetfulness, baby-sitting and transportation problems); *provider problems* (poor continuity, client-clinician relationship) and *environment problems* (weather, parking). These are levels at which it is possible to intervene with the service delivery system.

Given that a centre has taken all the steps it can toward eliminating process problems and environment problems, and given that provider problems are not yet germane to the potential first-appointment client, what can reasonably be done to help overcome client problems in the "patient" category?

Interventions in service delivery at the client problem level have typically been either antecedent or consequent in nature (Frankel & Hovell, 1978). Antecedent interventions include reminder letters or postcards (e.g., Duffey, 1978; Parrish et al., 1986), reminder letters with returnable appointment-change slips

(Cook, Morch, & Noble, 1976; Cook, Morch, Noble, & McLaughlin, 1977), and telephone reminders (e.g., Carr, 1985; Duffey, 1978; Hochstadt & Trybulla, 1980; Kluger & Karras, 1983; Schroeder, 1973). Frankel and Hovell (1979) suggest the antecedent interventions provide cues, as discriminative stimuli. Forman (1983), Kluger and Karras (1983), and Tess (1982) have all indicated that the antecedent interventions of information packets and orientation statements may serve to reduce anxiety about the unfamiliar and even enhance expectation of therapeutic rewards.

Consequent interventions have involved communicating and then applying contingencies for attendance and non-attendance. These have included both rewards, and negative reinforcement. Rewards include social and material reinforcement (Frankel & Hovell, 1978; Oppenheim et al., 1979; Parrish et al., 1986; Schwartz & White, 1977). Negative reinforcement has typically involved loss of treatment priority after a stated number of missed appointments (Cook et al., 1976; Parrish et al., 1986).

All interventions typically work to reduce the no-show rate as compared to either experimentally assigned control conditions or pre-post experiment control conditions (Carr, 1985; Cook et al., 1976; Duffey, 1978; Forman, 1983; Frankel & Hovell, 1978; Hochstadt & Trybulla, 1980; Kluger & Karras, 1983; Oppenheim et al., 1979; Parrish et al., 1986). In fact, Cook et al. (1977) found their mailed reminder with appointment change slip to have resulted in no-show reduction which was maintained at the reduced level for more than two years.

For our clinic, the antecedent interventions of choice were the use of mail-out reminders because previous research has indicated that they are as effective as telephone reminders (when time prior to appointment is controlled for) and are far more cost effective in terms of effort and expense of materials and clerical time (Carr, 1985; Cook et al., 1976, 1977; Duffey, 1978; Hochstadt & Trybulla, 1980; Kluger & Karras, 1983; Oppenheim et al., 1979; Schroeder, 1973). As orientation and information was already provided by our clinic, such statements and packages were not pursued as interventions to add to our existing services. Thus, mailed reminders seemed an appropriate antecedent option to explore.

Consequent interventions of interest to our clinic included use of a waiting-list contingency warning, found to be effective by Parrish et al. (1986) and Cook et al. (1976). Material rewards were considered too costly, and social support would come into play only after the first appointment, so were not considered. The effect of Cook et al.'s (1976) use of an appointment-change slip which was attached to their gentle warning notice was also perceived to be useful to investigate in its own right, separated from the effects of the warning. The completion and return of such a slip requires the client to engage, in some committed fashion, with the clinic. This would operate in the same fashion as a pre-appointment contract (Tess, 1982), or the completion and return of relatively lengthy client information forms before an appointment is set. Use of such forms was becoming part of the functioning of one of our clinic treatment teams. We wished to incorporate study of effectiveness of the use of these forms into our research.

Explanations of the use of contracting or other forms of detailed written commitment have been advanced in the psychotherapy literature on treatment

generalization, maintenance, and transfer (Perry & Paquin, 1987). The use of such forms in our clinic requires clients to elaborate on the problem situation, suggest desired changes, and to only receive treatment contingent upon completion of the forms. Thus, the forms provide two of the five procedures identified by Adelman and Taylor (1982) as enhancing motivation for treatment: (a) clarification and expansion of reasons which justify change; and (b) public declaration of choices for intervention. As well, such use of forms would increase the salience and, therefore, decrease attractiveness of the clients negative distress-causing behaviour, and also provide a goal-setting opportunity, both of which are interventions suggested by Miller (1985) as being helpful in improving client motivation to comply with (i.e., start) suggested treatment. Adelman and Taylor's (1982) and Miller's (1985) work are consistent with the basic assumptions of cognitive dissonance theory (Deux & Wrightsman, 1984). The hypothesis is that once clients have committed themselves to the act of completing and returning the forms or slips, they are more likely to come for an appointment (unless they have stated they are cancelling). To do otherwise is to create uncomfortable dissonance, since completing the forms connotes a private attitude of "clinic attendee." This dissonance is likely to be strongest in the case of completing long forms, since the greater effort required suggests greater commitment to attend. Such use of forms has not been investigated.

This study then, attempts to test the relative efficacies of a mailed reminder (cue only), a reminder with change slip (cue plus low-level commitment), a reminder with a warning, and clinic procedure as usual (unsystematic use of a reminder letter). Some clients of a treatment team requiring form completion were in the experimental reminder conditions and some were in the clinic business-as-usual condition.

It was hypothesized that:

1. Use of the experimental reminder letters or of forms requiring completion should significantly lower initial appointment no-show rates from that of the clinic as a whole. Determination of which condition, if any, is superior would be ascertained.
2. Those clients completing forms and who received experimental reminder letters should have the lowest no-show rates of all.

METHOD

Setting

Our clinic is a provincially funded community mental-health centre. Thus, there is no direct fee for service. It is mandated to provide outpatient treatment for children and their families for all citizens of its provincial region. Children from infancy to 18 years and their families are served. Services offered include individual, group, and family therapy, assessment and diagnostic services, speech therapy, and consultation with other agencies and government departments.

Subjects

All new clients from infancy to 12 years of age contacting the clinic were included in this study unless they were emergency cases (e.g., potential suicide, re-

cent sexual abuse). For clients in the study, parents were the largest referral source, followed by physicians, Department of Social Services, and the school system in order of number referred. Older clients were not included due to differences in how the clinic initially contacts them to engage in treatment. Clients who were already on waiting lists for appointments at the start of this experiment were not assigned to an experimental group since initial contact had already been made. The clients not formally included in the experiment were used to provide another point of comparison for the no-show manipulations, by looking at the experimental subjects relative to the performance of the clinic as a whole. Thus, of the 327 first-appointment clients scheduled for this time period, 75 (22.9%) were selected and randomly assigned to the experiment. Of these 75, 26 were assigned to the Warning group, 20 to the Usual Reminder group, 18 to the Change-Slip Warning group, and 11 to the Change-Slip group.

Thus, the first portion of the study involves four experimental groups, which receive different types of letters, systematically compared to each other and to the clinic clients who were not included in any of the four groups.

A second portion of the study looked at clients from a treatment team requiring the completion and return of forms to set appointments. Form-required team clients differed in no appreciable way from other clinic clients other than in age (6-12 years old). Not all clients from this team were assigned forms because this policy commenced just after the start of the study. Thus, some clients in the study had been contacted just prior to the requirement of forms. Clinicians in this team differed in no dimension from the others in the study. Over the previous year, this team's new clients showed no difference in no-show rates from any other team in the experiment. This finding suggests that the variable of age would not account for any potential differences found in the study. Clients from this team who returned their forms composed the Forms Required (FR) group, which included 93 of the 106 clients contacted by this team. Of these 93 FR clients, 35 were included in the experimental letter groups based on criteria discussed above. This allowed comparison of form use to reminder letters and to use of both forms and letters in combination.

Materials[1]

Clients were randomly assigned to the experimental letter conditions using a table of random numbers. Clients were sent one of the following types of letters on clinic letterhead:

1. A *change-slip* reminder requesting notification if time is to be changed via a returnable slip portion of the letter;
2. A *warning* reminder indicating the possibility of losing place in the waiting list should two appointments be missed;
3. A *change-slip-warning* reminder, combining both items 1 and 2; or
4. A *usual reminder* typically used by the clinic requesting confirmation of appointment time.

Child and Family Information Form

This form consisted of two parts. First, the parents were asked to state in their own words their perception of the problem, possible causes of the problem,

its history, and why they were seeking assistance at this time. They were also asked to identify the changes they would like to see as a result of contact with the clinic.

The second component of the form consisted of a family-identification section. Information specific to the identified client was also requested. This includes a medical history, school history, and development history.

The six-page form took approximately 30 minutes to complete. If parents were unable to answer a question they were encouraged to indicate that they "don't know."

Procedure

Usual clinic functioning. First, clinic therapists were interviewed to determine the "usual" process from client contact to initial appointment. They reported that when clients first contact the clinic, they speak over the telephone to an intake worker who collects client information, provides clinic information, and assigns the case to the appropriate treatment team. The team meets, the client is assigned a therapist, and the client is contacted, usually by the therapist, to set the appointment. After this point, there is a wide degree of variation about first appointment reminding. Sometimes a clinic reminder letter is sent by the receptionist on order of the therapist, sometimes the therapist calls the client, sometimes no reminder occurs. Clients not selected for use in the experimental letter conditions were expected to continue to receive reminder letters in an unstandardized fashion. Thus, some clients not involved in the experiment did receive letters and others did not. Due to clinic record-keeping procedures, it was not possible to classify the usual clinic functionng group by type of reminder contact made. However, this very lack of unclassifiable and unsystematic contact was important to compare to the four types of systematic experimental contact. Since one of the four types of experimental letters used systematically was the usual clinic letter, we have been able to tease out the effect of this letter from the effect of the unsystematic nature of the usual contact. As well, we were not interested, as a clinic, in testing no-reminder and telephone-reminder conditions. The literature and past experience informed us that no-reminder conditions result in the highest no-show rates, and that telephone reminders are too labour intensive. We were only interested in comparing approaches we would actually consider adopting. For these purposes, use of the undifferentiated usual clinic functioning was certainly adequate.

All clients were used in analysis of the clinic's overall rates to capture the effect, if any, of the experiment on the clinic's no-show rates.

Finally, though all teams requested clients to complete a child and family information form, only one team *required* the completed forms to be returned prior to appointment setting. Those FR (Form-Required) clients involved in the experiment would receive the appropriate letter for their experimental condition. Those FR clients not in the experiment may or may not have received the usual reminder letter.

Experimental letter procedure. To systemize the reminder process for the experiment, all appropriate clients were randomly assigned by the intake worker on initial contact to one of the four experimental groups. She then placed a coloured sticker on the clients' intake sheet. The colour corresponded to a group number

(1, 2, 3, 4) such that the intake worker, the treatment team, and the assigned therapist did not know to which letter condition the client belonged. Once the appointment was set, the therapist passed the coded intake sheet to the receptionist. The receptionist kept track of these clients, and sent the letter, appropriate to the client's colour code, seven days in advance of the first appointment. The receptionist kept records of appointment arrivals, no-shows, and cancellation/changes for all clients, both in experimental and "clinic as usual" categories. Data was collected on clients with first appointments scheduled from December, 1986, to April, 1987, over a four-month, two-week time span. Examination of no-show rates for quarterly periods over the previous 2.5 years had shown no seasonal trends. The time period chosen for the experiment was, therefore, selected for clinic convenience. Data was also collected on initial appointment attendance for the clinic as a whole prior to, during, and after the experimental treatment, to provide comparison to experimental-letter treatment rates.

As well, initial appointment attendance of the FR team was collected during the experimental period to allow comparison of the use of forms to use of reminder letters, as well as to use of both procedures in combination.

RESULTS

Impact of Experimental Letters

The percentage of clients in the experimental conditions who arrived, changed, or cancelled their appointments is shown in Table 1.

TABLE 1

Appointment-Keeping Behaviour for the Experimental Conditions

Condition	Arrivals[a]		Change/Cancel[a]		No-Show[a]	
Reminder	65.0%	(13)	35.0%	(7)	0.0%	(0)
Change Slip	72.7%	(8)	18.0%	(2)	9.0%	(1)
Warning	57.7%	(15)	38%	(10)	3.8%	(1)
Change-Slip Warning	66.7%	(12)	16.7%	(3)	16.7%	(3)
Total Overall Conditions	63.5%	(47)	29.7%	(22)	6.8%	(5)

[a] Numbers in parentheses = frequency

No significant differences were found in arrival, change/cancel, or no-show rates of all clients in the experiment. The small sample sizes in change/cancel and no-show categories in Table 1 limit the strength of the conclusion that no one of the experimental letters worked any better than the others. An effect of small to medium size may not be discernible with samples this small. There was, however, a significant difference between the no-show rates of all clients in the experiment and the no-show rate of the rest of the clinic during this time period. The experimental total no-show rate of 6.8% was significantly lower than that for the entire clinic overall rate[2] of 20.6% ($\chi^2 = 7.84, 1, N = 327, p < .01$). There was no

significant difference between the overall clinic no-show rate[3] before the experiment (21.2%) and during the experiment (17.4%). After the experiment ended, the overall clinic no-show rate rose to 23.3% for the four-month, two-week post-experiment period. While there was no significant difference between pre- and post-experiment no-show rates, the difference between the overall clinic no-show rate during the experiment and the post-experiment rate was significant ($\chi^2 = 6.05$, 1, $N = 249$, $p < .02$). This indicates the reduction in overall clinic no-show rate during the experimental period was not part of a continuing downward trend in no-shows, but was possibly due to the dampening effect of the experimental clients' rates on that of the clinic as a whole.

Impact of Form Completion

As can be seen for Table 2, those clients from the FR team (where forms were required to be returned prior to appointment setting) had an overall no-show rate which was significantly lower than that for experimental clients overall.

TABLE 2

No-Show Rate Results of Subjects in Form-Required (FR) Team Who Returned Forms

No-Show Rates Compared		Fisher's Exact Test[a]
FR Overall vs. Experiment Overall[b]		
1.1%	14.3%	$z = 2.44^*$, S = 425, $N = 133$
FR in Experiment vs. FR Overall[c]		
0.0%	1.8%	$z = .26$, S = 35, $N = 93$

[a] Two-tailed test, 1 *df*.

[b] To maintain independence for the purpose of analysis, FR subjects were removed from this variable category. When FR-in-experiment subjects are added, no-show rate = 6.8%, $N = 168$.

[c] To maintain independence for analysis, FR-in-experiment subjects were removed from the FR overall variable category. When FR-in-experiment subjects are added, no-show rate = 1.1%, $N = 93$.

* Statistical significance reached, $p < .05$.

The no-show rate for FR subjects in the experiment (who received experimental letters) was even lower, to the point where no no-shows occurred in this group. These rates are for clients within this group who returned their forms and thus, for whom an appointment could be made. Twelve percent of this team's potential clients did not return their forms and so were not scheduled for appointments. In the 18 months following this study, the use of forms has been adopted by the clinic as a whole, and the initial appointment no-show rate has been stabilized at 0-5% since that time.

DISCUSSION

The findings for this study indicate all types of mailed reminders, whether with warnings and/or change slips, can effectively reduce initial appointment no-

show rates when applied systematically. Requiring clients to complete and return forms prior to setting appointments provides an even greater reduction of the no-show rate. Finally, the no-show rate was lowest for those clients receiving both a reminder letter and requiring form return, though the difference between this rate and that for the form-return requirement alone was not significant. The use of threat and adversive consequences did not appreciably reduce the no-show rates in comparison to simple change slips and reminders involving only antecedent cues, although this conclusion is not a strong one.

The rise in the no-show rate immediately following the end of the experimental period for the clinic as a whole could be due to a couple of unintended side effects. The first is that the clinicians' old ways of getting first-appointment clients into the clinic dropped out of their behavioural repertoires during the experimental period, and did not immediately re-emerge upon termination of the study. The second is that clinicians were dealing with more clients than previously due to the decreased experimental no-show rates, felt overworked, and consciously or unconsciously worked to get the no-show rate back to its previous level. Given the almost immediate and sustained reduction of the clinic no-show rate after the clinic-wide adoption of forms, the first explanation seems more likely.

The requirement that families complete the child and family information form significantly reduced the no-show rate. This may be the result of two factors. First, the form immediately engages the family by requesting information about the child and family at the time of crisis. This would tend to give the impression that the clinic is responsive to child/family concerns, thereby creating a more positive view of the clinic. A second factor that may contribute to the low no-show rate is that those who completed the child and family form may be more motivated to seek assistance. Furthermore, the forms may have allowed clarification and elaboration of problems and hopes for change, as well as a public declaration of these concerns and hopes. Finally, as the forms require considerable investment of time, the families are more unwilling to squander their time investment by not keeping their first appointment. Thus it appears that use of cognitive dissonance and other motivationally-based approaches are more effective than those based on simple antecedent and consequent approaches for those clients who complete the forms.

It should be noted that the elimination of no-shows among the form group was achieved at a cost. Twelve percent of the clients referred did not return their forms. This could be a meaningful number of families. While the study did not examine why the forms were not returned it could be speculated that the families did not wish to receive help. Additional factors could be that the parents were illiterate, intimidated by forms, or too disabled/disorganized to complete and return the forms. These factors await further study.

The receptionist involved in this study reported that systematic administration of reminder letters was not time consuming nor difficult even under the more complex experimental conditions. The cost of a letter to the clinic, in terms of materials and clerical time is $0.75, and its cost to the client to return a change slip is $0.42 plus a minute to complete it, or a few minutes to call the clinic instead. The cost of the forms to the clinic is $1.25, with a cost of $0.42 and 30 minutes for the client to complete and return them by mail. However, the cost to the clinic of

a no-show is $21.72, based on the average clinician hourly pay. Both letters and forms represent a major financial saving to the clinic, and minimum financial cost to the client. The savings, in terms of aggravation, are also appreciable.

While it would appear the child and family form can result in zero no-shows, mental-health clinics may feel the costs are too high and an unnecessary barrier created to clients. These agencies may therefore decide to rely on a change slip reminder letter, which can assure a relatively low no-show rate.

It is hoped that the findings of this study will help other community mental-health clinics to make choices about the interventions most appropriate to them in reducing initial appointment no-show rates. The techniques tested here were simple and cost effective ways to decrease clinician and clerical time and frustration.

As well, this study does indicate that systematic testing of alternatives in an experimental approach can be usefully accomplished in an applied, clinical setting.

Finally, by testing techniques with different theoretical underpinnings, it is hoped that the theories supporting the technique found to be most effective (i.e., returned forms) can be used for further understanding of and intervention in treatment motivation. This would lead to the ultimate aim of improving clinic service delivery to all clients.

NOTES

1. Copies of the letters and forms are available from Dr. Tim Greenough, MacNeill Clinic, 912 Idylwyld Drive, Saskatoon, SK S7L 0Z6.
2. With experimental subjects removed from the overall rate.
3. Including experimental subjects.

RESUME

Quand les clients ne se présentent pas à leur premier rendez-vous, il en résulte une perte de temps et d'énergie dans le travail clinique et administratif. L'étude présentée ici tente de trouver un moyen peu coûteux de réduire le taux d'absences au premier rendez-vous dans une clinique communautaire de santé mentale pour enfants. On a comparé quatre types de lettres de rappel précédant le premier rendez-vous de même que l'utilisation d'une formule de confirmation retournée par le client. Les résultats montrent que toutes les interventions ont réduit le nombre d'absences. Les types de lettres de rappel ont manifesté une égale efficacité; l'utilisation d'une formule de confirmation a été significativement meilleure que l'envoi de lettres. Toutes ces méthodes ont été analysées en termes du rapport coûts/bénéfices. On discute de l'engagement requis dans les formules de réponse et on fait des suggestions pour de futures recherches.

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