Can a customer relationship management program improve recruitment for primary care research studies?

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Background: Recruiting family physicians into primary care research studies requires researchers to continually manage information coming in, going out, and coming in again. In many research groups, Microsoft Excel and Access are the usual data management tools, but they are very basic and do not support any automation, linking, or reminder systems to manage and integrate recruitment information and processes. **Objective:** We explored whether a commercial customer relationship management (CRM) software program – designed for sales people in businesses to improve customer relations and communications – could be used to make the research recruitment system faster, more effective, and more efficient. **Findings:** We found that while there was potential for long-term studies, it simply did not adapt effectively enough for our shorter study and recruitment budget. The amount of training required to master the software and our need for ongoing flexible and timely support were greater than the benefit of using CRM software for our study.

Key words: family physicians; primary health care; recruitment; research

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Recruiting family physicians or primary care practices into research studies is daunting. The evidence base supporting primary care recruitment is slowly increasing and highlighting the many steps, significant resources, and considerable time required to involve community-based health care providers in research (Asch *et al.*, 2000; Goodyear-Smith *et al.*, 2009; Jones *et al.*, 2011; McKinn *et al.*,

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2015). Recruiting primary care study participants often requires ongoing communication to identify correct contact information, confirm eligibility, share study information and elicit an expression of interest, share and ensure return of study documents, and carry out engagement and retention initiatives over the duration of the study (Johnston et al., 2010; Horspool et al., 2015). Many of these steps are multiplied by more doctors or practices than are needed for a study sample. Despite the growing body of evidence on recruitment approaches for primary care, strategies to facilitate recruitment and manage the ongoing information flow necessary for large community-based samples of independent practices remains a persistent gap in the collective knowledge base.

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Our team sought to improve the management of the information needed for participant recruitment over a three- to six-month period for a geographically dispersed study of primary care performance in three regions across Canada in Ontario, Nova Scotia, and British Columbia. We had previous experience using Microsoft Excel and Access (Microsoft Office Professional Plus 2013) for recruitment tracking. These programs are inexpensive and easy to learn but remain basic data storage tools, not information management tools, and they do not support any automation, linking, or reminder systems to manage and integrate recruitment information processes.

This report shares some of our lessons learned in experimenting with a customer relationship management (CRM) program - designed to improve customer relations and communication in business and organizations - to make the recruitment, management, and retention of physician and practice participants more effective and efficient.

CRM program process

Our study had project coordinators in three regions actively recruiting and managing participants over a two-year period with a goal of 40 physicians located in 40 different practices in each region. We needed a system to:

- Catalogue all potentially eligible practices for recruitment in the regions;
- Catalogue practice information including criteria for study eligibility, contacts (eg, receptionist, practice manager, etc.), and providers;
- Catalogue the recruitment efforts at each step from initial contact to follow-up attempts, to sending and following up on study documents;
- Record practice preferences for when to followup, who to contact and personal relationship with investigator;
- Remind when follow-ups for specific practices were due (eg, Practice X asked for a call the first week of September, Practice Y needs a followup call in two weeks);
- Track when study documents (eg, consent forms, completed surveys, etc.) were received or if still outstanding;
- Schedule site visits for data collection.

We considered 12 CRM programs listed in at least two separate rankings in top 10 independent online reviews of such programs. The software reviews compared user-friendliness, customer support, feature customization, integration with Microsoft Office and Outlook (Microsoft Office Professional Plus 2013) products, regulatory compliance, cost, analysis tools, and minimum contract duration.

The web-based Workbooks CRM (Workbooks Online Ltd., 2016) software system was chosen for high ratings of user-friendliness, customer support, customizability, and cost. Attractive features included real-time updates, comprehensive communication tracking (with automatic reminders sent to email or calendar), linkage with email accounts to contact participants directly, and efficient support. However, customized fields had to be manually created, there was no view of all fields at the same time and it was a two-step process to initially enter practice physicians into the

We bought the program (\$1181.11 Canadian for one year). Site coordinators underwent an initial general training of several hours through the online training support provided with the contract and had a teleconference with the vendor's support team. The system was then deployed in the three provinces. Coordinators were learning and deploying several new systems at the time, including an internet-based communication platform, cloud-based reference management software and secure file sharing program, and the recruitment CRM program. Coordinators successfully adopted each of the other new systems. However, after three- to six-months of use, each of the three sites abandoned the CRM program as it did not make the recruitment process easier. In each province, the staff fell back to tried-and-true Microsoft Excel (Microsoft Office Professional Plus 2013) for recruitment data management. We did not use the CRM long enough to assess the impact on retention.

Overall lessons learned

We explored, as a team, why the software had not been successful in any of the three regions. Each of the three site coordinators was

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Table 1 Project coordinators' views on using the software

What we wanted

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Did it work?

- Catalogue all potentially eligible practices for recruitment
- Ontario: Yes, it did work. All practices were input by a staff member. Once she learned how to do it, it was straightforward. Nova Scotia: Our initial list of potentially eligible providers was recorded as an Excel sheet. Once the providers were assessed for potential eligibility, we had a team member manually input the names into the system (she was not able to import them directly from Excel). Once the names were in the system, they then had to be organized by practice. Again, this was done manually by comparing with our initial eligibility Excel sheet.

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- Catalogue practice information including criteria for study eligibility, contacts, providers
- British Columbia: When I originally was learning the software, I found it cumbersome for each practice, you needed to add the practice first, and then add the physicians and select the corresponding practice. Later, we figured out how to import practice/physician lists that we had created using Excel.
- Ontario: The page that this was to be input on was created by folks in our study but it was counter intuitive to me. As you had to complete the whole page prior to saving and all queries could not be answered at the same time.
- Nova Scotia: We only imported physicians already assessed for initial eligibility. It was easy enough to track contact information in Workbooks but we faced a lot of difficulty in using an important feature of this system: tracking and sending emails directly through the system. Workbooks required the email address and password for my email account to use this feature. It goes against my university's policy to provide this information to an external agency so I had to create a dummy email account for these purposes. The Workbooks support personnel said it was an issue on my university's end and thus did not provide any assistance with fixing the issue. I ended up having to spend a good deal of time with my university's IT to solve the problem.
- Another issue was trying to export these contacts into a usable way. When it came time to mail the recruitment letters, I wanted to export the contact information so I could do a mail merge and auto print address labels. This was not an intuitive process. It took some time for me to realize how to do this.
- British Columbia: We were able to do this. It was fairly straightforward in terms of cataloging information. The part that we struggled with was using that information efficiently, especially since we had to modify most of the information in the software to suit our needs.

Ontario: By this time I was using Excel.

- Nova Scotia: It was easy enough to update individual changes to this through the system but we never figured out how to do bulk changes. For example, when I sent out letters to 400 + physicians, I did not want to update the information for each individual physician. We had a training session with someone from Workbooks to help with this but never figured out how to update this information in bulk. We ended up trying to use the system while simultaneously updating an Excel spreadsheet because we didn't trust all the information was being recorded properly or in a usable way. There were times when we could not get the Workbooks database to work and had to rely on the Excel sheet.
- British Columbia: It was very difficult to keep track of everything and to create groups for sending out mass emails. Due to the nature of our project, the 3 coordinators had to create and maintain lists specific to them. Then we had to make sure those we contacted successfully were followed up, and those we weren't able to contact were followed up with relatively soon. To compound the complexities of using the software in B.C, we had 3 different Divisions of Family Practice that asked us to use slightly different recruitment methods. Trying to keep track of all the different pieces of information using the software would have been difficult, which was a contributing reason for why the coordinators decided to recommend to stop using the software. The software included a huge learning curve and actually added work. We also experienced difficulties with sending emails directly through the CRM software. I spent countless hours trying to solve this on my own and then submitted help requests to the UBC IT department and the CRM software customer support, with no luck. In the end the problem was never resolved (we had decided to stop using the software).
- Ontario: No longer using the system.
- Nova Scotia: This was adequate. It was easy enough to update this information since it was on an individual level. Workbooks seems to work fine when trying to update a single case.
- British Columbia: Although we were able to record the information, we were not able to figure out how to pull out the information for exporting. We tried creating groups according to specific criteria, but it wasn't very helpful in the end. I was able to change the various picklists (eg, "person job role"), but wasn't able to utilize the picklists. In addition, I had contacted support about changing the salutation rule (eg, changing from "Dear [first name]" to "Dear Dr [last name] but received the response that this can be done but it required input from their engineering team and therefore costs would be involved.

 Catalogue the recruitment efforts at each step—from initial contact to follow up attempts, to sending and following up on study documents

 Record practice preferences for when to follow up, who to contact, personal relationship with investigator

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What we wanted	Did it work?
Pemind when follow ups for specific practices are due (eg, Practice X asked for a call the first week of September, Practice Y needs follow up call in two weeks, etc.)	Ontario: No longer using the system. Nova Scotia: The reminder function worked well in Workbooks. My only issue with it was that I would have to go into Norkbooks to see the reminders. If I was able to link to my email and get reminders sent to my email, this would have been much more convenient. British Columbia: Although we attempted to set reminders for when to follow up, I don't believe we ever used the software successfully for this function. Part of the reason was due to the fact that we weren't able to link the CRM software email function to our Outlook. Another reason was that it was too difficult to use so we ended up keeping track in our Excel document and during the busy recruitment periods, did not have time to then transfer the information we recorded in
 Track when study documents received (eg, consent, surveys completed, etc.) 	Excel to the software. Ontario: No longer using the system. Nova Scotia: This was linked to the above reminder system which was nice. I could set reminders when a consent form was spected back or for a new data collection day, etc.
• Schedule site visits for data collection	Diffusion Columba. We organ using the system. Ontain: No longer using the system. Nova Scotia: The calendar function through the system was not useful because I needed to know the survey administrators availability, which was only available through Outlook. Thus, I did not use the CRM software for scheduling. British Columbia: No longer using the system.

interviewed separately, by someone who was not part of the research team, to ensure comprehensive collection of feedback on their experiences using the new software for recruitment. This feedback was recorded, transcribed, and shared with the research team. Site coordinators and principal investigators discussed the feedback to identify, through consensus, the key lessons from our collective experience. All three coordinators consented to their feedback being published.

Our team acknowledged that there is always a certain amount of resistance to new technology and a desire to cling to familiar processes. We expected this and tried to compensate for it by selecting a new product that might better align with our needs. From initiation to training, site coordinators were enthusiastic about learning a potentially more efficient program. The other new systems deployed at the same time were all successfully integrated into ongoing operations signalling the team had capacity for learning new approaches.

Though coordinators who used the CRM software saw it had potential, they expressed that in order for the product to be a successful management tool, additional time for initial training and more accessible ongoing support would have been necessary. Said the Ontario coordinator: 'It is my belief that this program may be good for a longer study but the ramp up time it would take to learn the software did not equate to the amount of time we would spend recruiting and the number of touches we would have'.

The coordinators unanimously called for more training and better access to support when needed as issues arose with the CRM program. The Nova Scotia coordinator noted: 'The system has potential but we were unable to actualize the potential given our limited understanding of the system. If someone were to use this system for research recruitment again, it would be really helpful to be thoroughly trained. When we sought help, we were told we would need to pay a consultation fee to get specific feedback about our system, in addition to the existing cost for the subscription. However, it is important to fully understand how to use the system'.

The strengths and challenges encountered with the software for each step of the recruitment process in each region are described in Table 1.

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Conclusions

We believe new software can – and should – be used to make the collection, collation, and distribution of information during a research study more efficient and effective. However, use of the CRM program was too much of a leap from business to research for the timeframe and requirements of our study. Limited time to learn new technology and lack of comprehensive support forced staff to struggle with balancing, mastering, and using the technology while meeting the recruitment needs of the study. In addition to the cost of purchasing such a software product, a research team would need to budget for a significant amount of training time and ongoing technical support from the product developers to ensure the team members using the product were able to do so efficiently and effectively. If multiple new systems need to be learned at the same time, a coordinated strategy should recognize the significant time investment required for mastering each of these.

We found improving recruitment is not simply squeezing our needs into a CRM program meant for other things. Software and support packages better adapted to meet the needs of primary care health care research should be sought to minimize burdening the project staff with customization. Most projects cannot afford long learn-times and tighter recruitment timelines need rapid support on demand. We never reached the stage of time saving where automatic mail outs or reminders to follow-up might have reduced the burden on recruitment coordinators. Regardless, staff could see the potential benefit for longer studies capable of investing more time upfront in proper training. This might be especially attractive to long-term research programs or projects involving the same sample of potential participants over multiple studies. In the meantime, there is still a need for more accessible recruitment management programs for the myriad studies in primary care research.

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Conflicts of Interest

None.

References

- Asch, S., Connor, S., Hamilton, E. and Fox, S. 2000: Problems in recruiting community-based physicians for health services research. *Journal of General Internal Medicine* 15, 591–99.
- Goodyear-Smith, F., York, D., Petousis-Harris, H., Turner, N., Copp, J., Kerse, N. and Grant, C. 2009: Recruitment of practices in primary care research: the long and the short of it. *Family Practice* 26, 128–36.
- Horspool, M.J., Julious, S.A., Mooney, C., May, R., Sully, B. and Smithson, W.H. 2015: Preventing and lessening exacerbations of asthma in school-aged children associated with a new term (PLEASANT): recruiting primary care research sites the PLEASANT experience. NPJ Primary Care Respiratory Medicine 25, 15066.
- Johnston, S., Liddy, C., Hogg, W., Donskov, M., Russell, G. and Gyorfi-Dyke, E. 2010: Barriers and facilitators to recruitment of physicians and practices for primary care health services research at one centre. BMC Medical Research Methodology 10, 109.
- Jones, K.M., Dixon, M.E., Falkingham, L., Piteman, L. and Dixon, J.B. 2011: Barriers to recruitment of professionals into a general practice childhood obesity program. *Australian Journal of Primary Health* 17, 156–61.
- McKinn, S., Bonner, C., Jansen, J. and McCaffery, K. 2015: Recruiting general practitioners as participants for qualitative and experimental primary care studies in Australia. *Australian Journal of Primary Health* 21, 354–359.
- Workbooks Online Ltd. 2016: Workbooks CRM. Reading, UK: Software Program.

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