Evaluation of a disease-management intervention designed to reduce depression disability

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To the editor

Clinical depression is a common medical condition that has profound economic implications for individuals, their employers and society at large [1]. Among others, the Canadian Psychiatric Association has fostered research into lowering the work impact of mental disorders [2]. To reduce the impact of depression on working Canadians, the Canadian Network for Mood and Anxiety Treatments (CANMAT) has produced a modular continuing health education (CHE) programme for family doctors called Working with Depression. Such education can enhance doctor knowledge and skills, as a way to improve clinical outcomes [3,4]. The CHE programme explored managing the impact of depression on work, using chronic disease management (CDM) strategies to improve clinical approaches to depression, and pharmacotherapy tips.

Primary care doctors, who treat the majority of depressed patients in Canada, were chosen for training [5]. In order to evaluate the intervention, a study was designed which uses key CHE evaluation levels: (1) satisfaction; (2) knowledge gained; (3) performance; and (4) actual clinical outcomes of the participants’ patients [6]. In addition to immediate satisfaction, impact on patients was explored by having doctors participate in chart stimulated recall (CSR), or answering a brief questionnaire, done 4 months after the event. This evaluation will guide further refinement of interventions to improve treatment of working Canadians.

Methods

Participants
Invitations were sent to 300 doctors in Toronto, 300 doctors in Montreal and 175 doctors in Vancouver. A total of 75 doctors attended the CHE programme, Working with Depression, and were asked to complete a course evaluation at the event. Four months later, they were faxed an invitation to participate in CSR. Those who did not want to participate in CSR were then asked to fill out a brief five-item evaluation questionnaire, comprised of questions from the longer interview used in CSR.

Educational intervention
The CANMAT developed a CHE intervention which is comprised of three modules, delivered as a half day workshop. Module one’s focus was ‘Depression, Work and Disability: Practical Tips for Management’, and involved topics such as depressive symptoms that impair work function, a primer for assessing ability to work while depressed, practical planning for absence from work, barriers to returning to work and resources for enhancing work function, including a key patient self-care manual, ‘Antidepressant skills at work: A Self-Care Tool for Employees with Depression’ [7].

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Module two focused on ‘Using Disease Management for Depression’, and included principles of collaborative disease management, diagnostic tips and traps, use of outcome measures [such as the Personal Health Questionnaire (PHQ-9), Hamilton Depression Rating Scale (HAM-D) and Beck Depression Inventory (BDI)], all validated depression rating scales] [8–10], flowsheets, and incorporating reminder systems into practice.

Module three discussed ‘Optimizing Pharmacotherapy for Depression’, and covered topics such as acute vs. maintenance treatment, basic prescribing for workers with depression, managing side-effects, enhancing medication adherence and strategies for non-response.

**Instruments**

At the end of each teaching workshop, a 10-item satisfaction questionnaire was administered, comprised of questions evaluating the structure and content of the programme.

Items were rated on a 5-point likert scale, with 1 being strongly disagree and 5 being strongly agree. Questionnaire items included credibility, organization, relevance and clarity, expectations, programme and personal learning objectives, need in family practice, interaction and discussion time.

Four months after training, a five-item outcome questionnaire asked doctors to specify their use of rating scales and a self-care manual, as well as to rate the overall effectiveness of the CHE programme. Doctors were also asked to add qualitative feedback and indicate their interest in attending future Working with Depression workshops. Also at month four, volunteers undertook CSR. This case-based interview asks doctors looking at their own patient’s chart to answer questions about management decisions and other options that were considered and ruled out [11,12]. In this way, both actual facts as well as qualitative information about the decision are collected [13].

The CSR consisted of 16 questions, developed by the research team, by looking at key teachings from the workshop. Ten questions pertained to treatment, while four ascertained demographic characteristics of patients. A copy of the interview schedule is available from the authors.

**Results**

In total, 71% of attendees filled out the satisfaction questionnaire ($n = 75$). The overall mean for the three programmes was 4.6, with no notable differences between the three sites. Both Toronto and Vancouver had similar means for the items on the satisfaction questionnaire. Montreal had means that were equal to or greater than those of Toronto and Vancouver on most items (Table 1).

In total, 27% of attendees ($n = 75$) responded to the brief five-item questionnaire (impact 4 months later). Of the 20 doctors responding to the short-form questionnaire, seven were from Toronto, seven from Montreal and six from Vancouver. The ‘rating scale use’ item on the short-form questionnaire revealed that more than half of the doctors (55%) used the PHQ-9, 44% used the HAM-D and 11% the BDI ($n = 18$), while approximately a third of doctors also referred their patients to the self-care manual ‘Anti-depressant skills at work: A Self-Care Tool for Employees with Depression’. A majority of the doctors (66%) rated the programme somewhat helpful, 26% rated it ‘very helpful’ and 10% from a sample of 19 rated it as ‘Not at all’ helpful. When asked whether they would attend future Working with Depression workshops, 95% of doctors expressed interest to do so.

Three doctors (all from Toronto; two women and one man) participated in CSR, providing data for eight patients using CSR.

The following approaches were used in the management of these eight cases: prescription of antidepressants, 87.5%; communication with employer, 50%; prescription of work absence, 37.5%; discussion with patients to take time off work in 37.5% of cases lead to 25% of patients changing their mind as a result of this discussion; use of rating scales – Global Assessment of Functioning (GAF) scale, 12.5%; HAM-D, 37.5%; ‘Other’ rating scales, 37.5%.

None of the three doctors participating in the chart-stimulated recall referred any of their patients to the self-care manual ‘Anti-depressant skills at work: A Self-Care Tool for Employees with Depression’.

**Discussion**

In order to determine the effectiveness of the Working with Depression programme, we must look at what the following CHE evaluation levels revealed: (1) satisfaction; (2) knowledge gained; (3) performance; and (4) actual clinical outcomes.

**Satisfaction**

The satisfaction questionnaire scores indicated that the programme had a positive impact overall, because virtually all items rated 4.5
or above. In total, 95% interest in attending future similar workshops further supported the satisfaction with the overall programme.

Knowledge gained and performance

A number of recommendations of the Working with Depression programme focused on the use of CDM tools, such as rating scales that not only quantify symptoms, but also characterize the nature of the work disability.

More than half of the doctors answering the short-form questionnaire used the PHQ-9, one of the instruments taught and recommended by the programme.

Of the doctors participating in the CSR, the following approaches, as per the CHE programme taught, were among the most widely used in the management of patient cases: prescription of antidepressants, use of rating scales, prescription of work absence, discussion with patients to take time off work, referral to self-care manual, communication with employer.

Actual clinical outcomes

The actual clinical outcomes of patients could only be determined from the CSR. Specific barriers to return to work were explored, allowing direction for further CHE programmes as well as suggestions for further interventions to reduce disability. For the eight cases, the majority wanted to continue working, and only a minority went on short-term disability. Discussion of the pros/cons of working occurred in a third of patients. However, the small number of participating doctors showed that there were recruitment problems to CSR, perhaps due to the long delay (4 months) after the event and because doctors were not recruited at the time of the education event.

Limitations

Although the findings are encouraging, the study sample for both the short-form questionnaire and the CSR were quite small. A larger sample of participating doctors would be needed to draw more definitive conclusions. Further, the evaluation of the programme could have been more effective if recruitment occurred closer to the time of the event, with a follow-up several months later.

Conclusions

In order to deal with the burden of depression in the workplace, CANMAT developed an innovative CHE programme to provide primary care doctors with key knowledge and tools. The collected data provide an evaluation of the CHE programme, providing further direction for future CHE. Given the differential uptake of different tools, this study suggests that some recommendations (such as using a patient self-care manual) are less readily followed and may need additional emphasis in future depression disability workshops. Finally, explicit data on actual functional outcomes of the intervention were collected. The programme had a positive impact overall, as doctors are employing some of the programme’s strategies in their practice, and a large percentage expressed interest in attending similar workshops in the future.

A number of doctors started using specific techniques such as using rating scales and other CDM strategies and communicating with the patient’s employer. A smaller number had a discussion with patients to take time off work and referred patients to the self-care manual ‘Antidepressant skills at work: A Self-Care Tool for Employees with Depression’.

The limited responses from the CSR do not provide definitive clinical data; however, this programme demonstrated that primary care doctors are very eager to receive more training on workplace disability issues.

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