AFTER SHARED CARE: PATIENTS' SYMPTOMS AND FUNCTIONING 3 TO 6 MONTHS FOLLOWING CARE AT A RURAL SHARED MENTAL HEALTH CARE CLINIC

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ABSTRACT

The present study evaluates the mental health of participants 3 to 6 months after completing treatment at a shared mental health care clinic. Twenty-five participants completed the Patient Health Questionnaire (PHQ) and the World Health Organization Disability Assessment Scale version II (WHODAS-II) at entry, exit, and 3 to 6 months following treatment. Results for the PHQ found significant sustained improvement for major depression, other anxiety syndrome, and somatoform disorder. The WHODAS-II scale demonstrated that significant improvement was maintained 3 to 6 months following treatment completion. These findings suggest that patients receiving short-term therapy and psychiatric consultation in a shared care setting may show significant, sustained improvement in mental and physical functioning.

Shared mental health care (SMHC) involves the co-location of psychiatrists, counsellors, and family physicians in a patient's primary health care setting. In this model, mental health care providers

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discuss the patient's mental health disorders with the primary health care provider and educate, collaborate with, and provide consultative advice to the primary health care provider (Farrar, Kates, Crustolo, & Nikolaou, 2001; Kates, Craven, Bishop, et al., 1997; Kushner et al., 2001).

Regular access to psychiatric services can decrease the burden on traditional referral-based outpatient consultation psychiatry (Craven, Cohen, Campbell, Williams, & Kates, 1997; Kates, 1988). Shared mental health care has been found to be successful in treating various mental disorders such as major depression (Katon et al., 1996; Katon et al., 1999). Incorporating short-term counselling therapy into a SMHC setting has proven effective in improving mental health disorders (Haggarty et al., 2008; Katon et al., 1996). Counsellor, physician, and psychiatrist satisfaction with SMHC services has been reported (Farrar et al., 2001; Kates, Craven, Crustolo, et al., 1997).

However, research regarding outcomes in SMHC services has been inconclusive (Emmanuel, McGee, Ukoumunne, & Tyrer, 2002). Studies measuring symptoms, disability, quality of life, and severity of mental illness did not observe significant differences between patients using shared mental health care services as opposed to traditional mental health care (Chisholm et al., 2000; Emmanuel et al., 2002; Fitzpatrick et al., 2004).

The current study took place in a clinic located in a relatively large city in rural northern Ontario. Populations of rural and isolated areas share common problems in health status and access to health care. The farther people live from large urban centres, the more their health status deteriorates: People living in rural areas have lower life expectancies than the national average, higher rates of disability, and more mental and physical health issues (Interior Health, 2004; Ryan-Nicholls, 2004; Statistics Canada, 2001). In underserved rural areas with limited psychiatric resources, access to psychiatric consultation is often lacking.

The purpose of this study was to determine whether patients who had three or more visits to a SMHC service would report changes in symptoms and/or functioning at 3 to 6 months following completion of treatment. It was hypothesized that patients with significant clinical difficulties would report improvement from intake to the final therapy session and would maintain this improvement 3 to 6 months later. Specifically, it was hypothesized that patients would show improvement in their personal care, performance of occupational tasks, and social functioning.

METHOD

Setting

The Fort William Clinic is staffed by 11 family physicians, 1 psychiatrist, 2 mental health counsellors, and 1 clerical support worker. It serves 18,000–20,000 patients (approximately 20% of the city's population). Patients are referred to the SMHC clinic by their family physician. The referral is reviewed by a mental health counsellor who contacts the patient within 48 hours and sets up an appointment within 2 to 3 weeks. Treatment is based upon short-term (target of four to six sessions), manualized, counselling-based interventions—predominantly cognitive-behavioural, interpersonal, and supportive therapies. A psychiatrist attends at the clinic biweekly and provides consultation and medication management advice.

Participants

Individuals who visited the SMHC clinic three or more times, to see either the psychiatrist or the counsellor, were eligible for participation in the study. Participants reviewed a letter of information describing the shared care program and the evaluation process before they completed the entry, exit, and follow-up measures. Approval from the local general hospital ethics board was obtained for data collection and evaluation.

Sixty-one patients from the Fort William Clinic were initially eligible for inclusion and completed the assessment measures at intake (entry), and 37 patients (61%) completed the assessment measures at discharge (exit). Three attempts were made to contact participants via telephone 3 to 6 months following treatment completion (follow-up). Twenty-five (41%) patients were successfully contacted and completed assessments: 19 females, ages 20–68 years (M = 42.5, SD = 13.03); and 6 males, ages 34–57 years (M = 45.8, SD = 8.9). The average number of visits to the clinic was 9.04 (SD = 4.28). The duration of treatment ranged from 2 to 20 months with an average treatment length of 6.24 months (SD = 3.85). Patients who did not complete their treatment plan (n = 19) and patients who were referred to external psychiatrists or counsellors (n = 4) completed questionnaires only at entry; these data were not included in the results.

Measures

The World Health Organization Disability Assessment Scale, version II (WHODAS-II) is a 12-item ("S" items) screening instrument that asks individuals to rate their degree of difficulty, due to health conditions, in maintaining personal care, performing occupational tasks, and social functioning over the previous 30 days (World Health Organization, 2001). Responses are Likert-type ranging from 1 (*no difficulty*) to 5 (*extreme difficulty*). Scores on the 12 items are summed and compared with standardized scores developed by the WHO. Five additional items ("H" items) evaluate the extent to which health problems interfere with patients' daily living.

The Patient Health Questionnaire (PHQ) is a four-page, self-administered questionnaire that identifies symptom clusters commonly encountered in primary care (Kroenke, Spitzer, & Williams, 2001; Spitzer, Kroenke, & Williams, 1999). Specifically, the PHQ assesses eight diagnoses (major depressive disorder, other depressive disorder, panic disorder, other anxiety disorder, bulimia nervosa, somatoform, binge eating, and alcohol disorders) based upon criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV; Spitzer et al., 1999). Items are scored by previously developed diagnostic thresholds for each of the aforementioned disorders; that is, participants either meet the threshold for depressive symptoms or they do not. For the purposes of this study, the symptom clusters for somatoform disorder, major depressive disorder, other depressive disorder, panic disorder, and other anxiety disorder were selected. Diagnostic criteria were used to determine whether participants met the threshold for each symptom cluster (Spitzer et al., 1999).

Procedure

At the initial assessment (entry), patients completed demographic information, the PHQ, and the WHODAS-II. The PHQ and WHODAS-II were completed again at discharge (exit). Within 3 to 6

months of discharge (follow-up), the PHQ and WHODAS-II questionnaires were completed by telephone interview.

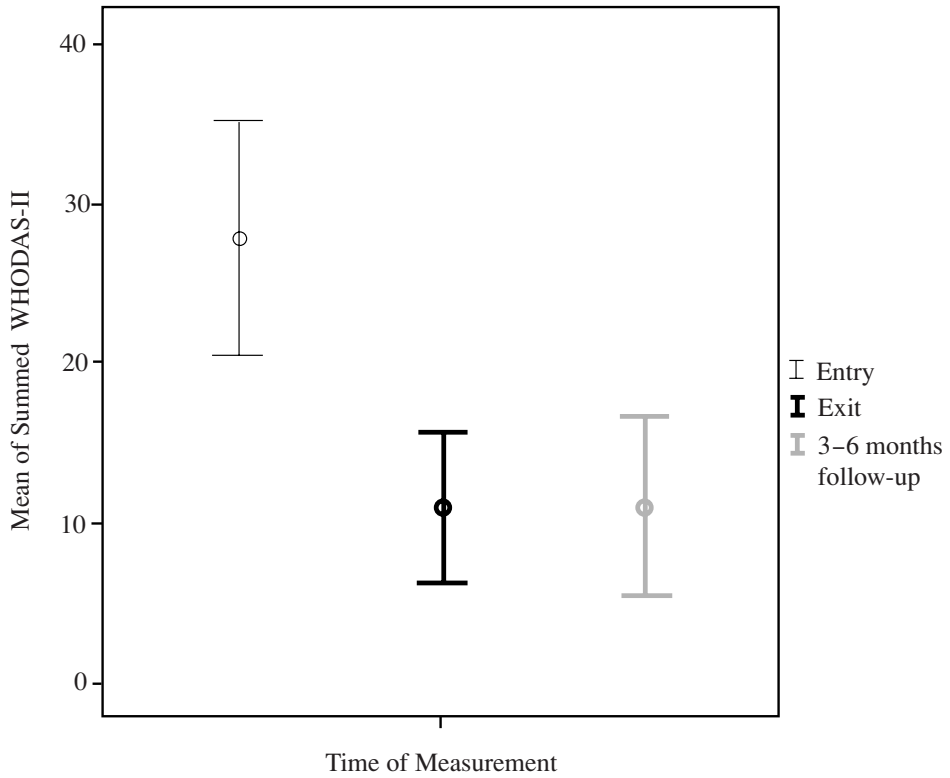
RESULTS

World Health Organization Disability Assessment Scale

An analysis of variance (ANOVA) was performed with time of measurement (entry vs. exit vs. follow-up) as a within-subjects factor. The sphericity assumption was not met; the Huynh-Feldt correction was therefore applied. The main effect of time of measurement was significant, $F(1.16, 25.42) = 15.39$, $p < .001$. Post hoc comparisons were performed using the Bonferroni adjustment for multiple comparisons. The overall summed score of the WHODAS-II was significant, and the summed score was reduced from a mean of 27.48 ($SD = 16.22$) at pretreatment to a mean of 11.28 ($SD = 10.40$, $p < .01$) immediately following treatment. The improvement was maintained at the 3 to 6 month follow-up assessment ($M = 10.99$, $SD = 12.35$, $p < .01$; see Figure 1).

Figure 1

WHODAS-II "S" Item Summed Scores at Entry, Exit, and 3–6 Month Follow-Up (*n* = 25)



Five WHODAS-II questions pertaining to the interference of mental health problems with daily functioning were included. Participants had significantly fewer days with difficulty caused by mental illness (mean difference = 14.58 days) after treatment and this was maintained 3 to 6 months later (mean difference = 12.05 days). Participants also had fewer days of total incapacity (mean difference = 4.06 days) and of reduced activity after treatment (mean difference = 4.95 days); however, this was not maintained 3 to 6 months following treatment (Table 1).

Table 1

WHODAS-II Means, Standard Deviations, *t* and *d* Values for Patients Completing Both Entry and Exit Measures

	Entry *M* (*SD*)	Exit *M* (*SD*)	3–6 months posttreatment	*F*
†WHODAS-II S items*	27.48 (16.22)	11.28 (10.40)	10.99 (12.35)	15.39[ab]
††H1: Rate overall health over past 30 days**	2.10 (0.91)	2.10 (0.64)	2.95 (0.69)	7.12[b]
†H2: Overall interference with life**	1.65 (0.94)	1.61 (0.72)	0.87 (0.81)	8.01[b]
‡ H3: No. of days of difficulty in last 30 days **	22.00 (9.18)	7.42 (8.13)	9.95 (11.37)	14.11[ab]
‡ H4: No. of days total incapacity of last 30 days	4.53 (7.06)	0.47 (1.02)	1.42 (3.59)	4.63[a]
‡ H5: No. of days of reduced activity in last 30 days*	8.84 (7.54)	3.89 (5.04)	4.37 (6.04)	5.15[a]

Note. WHODAS-II = World Health Organization Disability Assessment Scale, version II. H1 and H2 are rated on Likert-type scales (H1: 1 = *very good*, 5 = *very bad*; H2: 1 = *none*, 5 = *extreme*).

† 2 participants missing data. †† 5 participants missing data. ‡ 6 participants missing data.

a = Entry significantly different from exit, $p < .001$.

b = Entry significantly different from 3–6 month posttreatment, $p < .001$.

* p .05. ** $p < .01$.

Patient Health Questionnaire

Dichotomous data from the PHQ were examined using McNemar tests to determine whether there were significant differences between time 0 and time 1 in terms of improvement for patients who were above threshold. Separate analyses were then conducted to evaluate 3 to 6 month follow-up effects (Table 2).

McNemar tests revealed significant reductions in somatoform disorder at exit (24% reduction from baseline, $p < .05$) and approached significance at 3 to 6 month follow-up ($p = .06$). The other significant reduction was in other anxiety syndrome (28% reduction from baseline, $p < .05$) from entry to exit, and this was maintained at follow-up ($p = .04$). A 50% reduction in those above threshold for other depression was maintained at follow-up. However, it was not possible to conduct a McNemar test for major depression due to insufficient cell numbers..

Table 2

Patients Who Met Patient Health Questionnaire (PHQ) Diagnostic Threshold Criteria and Completed Both Entry and Exit Measures (*n* = 25)

PHQ domain	Entry *n* (%)	Exit *n* (%)	Follow-up (3–6 months) *n* (%)
Major depressive disorder	10 (40)	0[a]	0[a]
Other depressive disorder	2 (8)	1 (4)	1 (4)
Panic disorder	2 (8)	1 (4)	2 (8)
Other anxiety disorder	8 (32)	1 (4)*	1 (4)*
Somatoform disorder	9 (36)	3 (12)*	4 (16)

Note.

[a] Analyses could not be performed due to inadequate numbers.

* Reflects a statistically significant change (from entry) in McNemar tests of $p < .05$.

DISCUSSION

This study demonstrated that patients receiving brief therapy treatment and psychiatric consultation in a shared care mental health service sustained improvements made in major depression, anxiety, and somatoform disorder 3 to 6 months following treatment. Moreover, participants ($n = 19$) reported a significant reduction in both the degree to which mental illness interfered with daily living and the number of days in a month that they experienced difficulty. This finding is consistent with earlier findings in this sample showing clinical improvement in both symptoms and functioning (Haggarty et al., 2008). The significant findings regarding depression and anxiety are also comparable with other studies in urban centres that find SMHC an effective treatment model (Hegel et al., 2005; Katon et al., 2001). Co-locating mental health services may prove effective in reducing symptoms and improving functioning during the course of care, and in maintaining this improvement several months after care is completed.

Several limitations must be noted. This study was not a randomized, controlled trial. Without a comparable control group of patients who received traditional mental health care, it cannot be concluded that the SMHC program is an improvement over traditional models of mental health care.

The sample size was limited, which is somewhat to be expected given that the participants were drawn from a geographically isolated population; however, the small sample size may, for some questions, have influenced the results of the subscale scores. Notably, participant attrition over the course of the study was greater than 50%.

An additional limitation is that, at follow-up, assessments of patient symptoms and improvement were based solely upon the patient's subjective self-reports by telephone. Future studies might consider face-to-face measures of symptom improvement, additional data (e.g., physician records or medication use), and social support measures (e.g., family, spouse, and friends). Such measures might provide a more valid, global assessment of patients' health outcomes and treatment efficacy.

CONCLUSION

The results from this limited, rural sample suggest that the psychiatric support and short-term therapy provided in a SMHC setting were associated with significant, sustained improvements in patients' mental and physical functioning for those who completed treatment. This study demonstrates the potential for sustained effectiveness of mental health care delivery utilizing a SMHC model in an underserviced, northern area.

RÉSUMÉ

Dans cette étude, nous avons évalué, de trois à six mois après la fin de leur traitement, l'état de santé mentale d'individus ayant reçu des soins dans une clinique de soins partagés en santé mentale. Au début et à la fin du traitement, puis de trois à six mois après le traitement, 25 participants ont répondu à deux questionnaires : le Questionnaire de santé du patient (*Patient Health Questionnaire, PHQ*), et l'Échelle pour l'évaluation d'une incapacité psychiatrique de l'Organisation mondiale de la santé (WHODAS), version II. D'une part, selon le PHQ, on note une amélioration significative et durable de l'état de santé des patients ayant souffert de dépression grave, d'un autre syndrome d'anxiété ou d'un trouble somatoforme. Les résultats du WHODAS-II, d'autre part, indiquent que cette amélioration significative s'est maintenue de trois à six mois après la fin du traitement. Ces observations suggèrent que des patients qui suivent des thérapies à court terme et reçoivent des soins psychiatriques dans le cadre de soins partagés en santé mentale montrent des améliorations significatives et durables dans leur fonctionnement sur les plans mental et physique.

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