PERSPECTIVE

Problem Management Plus (PM+): a WHO transdiagnostic psychological intervention for common mental health problems

Katie S. Dawson[1], Richard A. Bryant[1], Melissa Harper[2,3], Alvin Kuowei Tay[1,4], Atif Rahman[5], Alison Schafer[6], Mark van Ommeren[2]

[1]University of New South Wales, Sydney, Australia; [2]World Health Organization, Geneva, Switzerland; [3]University of Geneva, Geneva, Switzerland; [4]Psychiatry Research and Teaching Unit, Liverpool Hospital, Sydney, Australia; [5]University of Liverpool, Liverpool, UK; [6]World Vision Australia/International

Mental disorders are significant contributors to the global burden of disease (1). While they occur across all levels of socio-economic status, the majority of populations in low- and middle-income countries (LMICs) do not have access to effective psychological and pharmacological interventions (2). Key barriers to sustainable delivery of psychological therapies in LMICs include limited mental health funding and infrastructure, chronic shortage of mental health professionals, lack of treatments adapted to the local context, and challenges associated with training and supervision. Implementation of low-intensity psychological interventions by trained para-professionals is one potential solution to this problem (3,4) which is receiving significant attention as part of global mental health research agendas (e.g., 5).

A number of low-intensity interventions have demonstrated clinical benefit and utility in high-income settings. For example, early analyses of the UK's Improving Access to Psychological Therapies programme (IAPT, 6) found a substantial reduction in depression and anxiety in people who attended at least two sessions of low-intensity interventions. Additionally, a recent meta-analysis challenged conventional thinking and provided support for low-intensity interventions as an effective treatment even for individuals with symptoms of severe depression (7).

Evidence for the applicability of psychological interventions by non-specialists in LMICs is mounting (8,9). For instance, group interpersonal psychotherapy facilitated by local para-professionals has been shown to be effective in rural Uganda among depressed adults compared to usual care at six month follow-up (10). In rural Pakistan, Rahman et al (11) found that local community health workers could effectively deliver a locally adapted cognitive-behavioural intervention for perinatal depression. Mothers receiving the treatment demonstrated significant clinical improvement on depression symptoms, showed less disability and better overall and social functioning. Finally, a comparatively more intensive transdiagnostic intervention, the Common Elements Treatment Approach (CETA), has shown promising results for the treatment of symptoms of depression, anxiety and post-traumatic stress in Burmese refugees when delivered by para-professionals (12).

To fill the gap between mental health needs and access to quality care, and extend the current research on low-intensity interventions in LMICs, the World Health Organization (WHO) – as part of its Mental Health Gap Action Programme (mhGAP) – has begun to develop and test low-intensity psychological interventions. The current paper focuses on one such intervention, named Problem Management Plus (PM+).

THERAPEUTIC FOUNDATIONS FOR PM+

PM+ is for adults suffering from symptoms of common mental health problems (e.g., depression, anxiety, stress or grief), as well as self-identified practical problems (e.g., unemployment, interpersonal conflict). It is not suitable for people presenting with severe mental health problems (e.g., those with psychosis or at imminent risk for suicide).

One of the core features underpinning PM+ is adherence to a transdiagnostic approach. Transdiagnostic treatments are "those that apply the same underlying principles across mental disorders, without tailoring the protocol to specific diagnoses" (13). This approach can be very useful because most people present with comorbidity. Addressing multiple problems at one time through shared emotional mechanisms is more efficient (14).

Considerable momentum has developed in high-income settings for the use of transdiagnostic treatments, with initial evidence pointing to their efficacy in alleviating common mental health problems (15). A key advantage of these approaches for LMICs is that they reduce the need for and challenge of making differential diagnoses and learning multiple treatment manuals for different disorders (16).

Reflecting this therapeutic approach, PM+ has integrated problem-solving and behavioural treatment techniques that demonstrate amenability to low-intensity delivery while seeking to preserve a strong evidence base (3,17). Following review by 24 international experts, four core therapeutic strategies (described below) were included in the manual. There was a strong emphasis on behavioural (as opposed to cognitive) techniques, as these would likely be easier to learn by individuals and lay helpers.

DESCRIPTION OF PM+

The name "Problem Management Plus" is intended to reflect the therapeutic aims of the intervention: to improve one's management over practical problems (e.g., unemployment, interpersonal conflict) and associated common mental health problems. The term "problem management" is used rather than "problem solving" to highlight that many practical problems encountered by people living in adversity may not necessarily be solvable. The "plus" refers to the evidence-based behavioural strategies that enhance one's capacity to adaptively manage emotional problems.

In PM+, subjects are seen on an individual, face-to-face basis for five weekly sessions with a lay helper. The length of the sessions is 90 min, to allow adequate time for explanation of a strategy and application to client-identified problems. Independent practice of strategies between sessions is encouraged and reviewed in subsequent sessions, thus enhancing learning through repetition.

In addition to the four core strategies, PM+ includes a psychoeducation component, delivered in session one. Individuals are educated about common reactions to adversity and receive a general overview and rationale of the intervention. A brief motivational interviewing component is included to enhance one's commitment to being actively engaged in PM+.

CORE STRATEGIES OF PM+

Managing stress

Lay helpers introduce a simple stress management strategy in session one, to optimize initial mastery of stress and anxiety symptoms as well as enhance relaxation. Stress management has been identified as an effective strategy in the treatment of post-traumatic stress disorder and depression, albeit less effective than high-intensity intervention strategies, such as cognitive-behavioural therapy (18-21). Within PM+, slow breathing is taught, given its ease of learning, likelihood of being acceptable in different cultural contexts, and potential to be delivered succinctly.

Managing problems

From session two, people are taught basic skills to help them address practical problems. In PM+, this strategy extends the traditional six-step problem solving format (22) to emulate Bowen et al's problem solving approach (23). It includes categorizing problems as solvable, unsolvable and unimportant prior to selecting a target problem. This step aims to support individuals to take control of their problems by determining what is important to them and investing solely in those problems considered of significance to their lives. This approach has been shown to have promising results in randomized controlled trials in high-income contexts (24) and also in a South African pilot study (8).

Get going, keep doing

This behavioural activation strategy aims to increase the opportunity for positive reinforcement from the environment and directly address inertia, a distinguishing feature of depression (25,26). Numerous studies have demonstrated that behavioural activation is an effective means to reduce depressed mood (27). In PM+, individuals are encouraged to re-engage gradually with pleasant and task-oriented activities to improve mood and functionality. This strategy is introduced in the second session.

Strengthening social support

A distinct strategy to promote social support was retained in the final intervention manual. It aims to optimize a person's capacity to re-engage in the community, elicit support (e.g., emotional, practical) from others or specific agencies, and provide support him/herself. By the end of session three, the individual has likely gained some personal locus of control and mastery over his/her symptoms, and so strengthening his/her social support is considered. Perceived social support has been found to be a robust construct associated with better psychological outcome in a variety of populations, including those exposed to traumatic events (28-30).

RELAPSE PREVENTION

Relapse prevention education is delivered in the final session. This involves identifying personal warning signs of relapse, gently testing people's knowledge of strategies, including how best to apply them to manage specific problems, and identifying future goals.

GROUP ADAPTATION

To enhance cost-effectiveness and accessibility, PM+ has recently been adapted to be delivered in a group setting (and plans are underway for development and testing in e-format). All core treatment components, session content and frequency have been retained in the group version. However, treatment sessions last three hours, to accommodate the unique dynamics of delivering an intervention to a group (e.g., group discussions) and include group rituals and breaks. A ratio of no greater than one facilitator to eight participants has been recommended. Facilitators are expected to have a similar profile as that of individual PM+ lay helpers (discussed below) and undergo a brief training course

specific to group PM+. This variation of the intervention is currently being tested in rural Pakistan.

WHO PROVIDES PM+?

Upholding a task shifting approach, PM+ is intended to be delivered by lay helpers who have completed at least high school but without previous mental health training. Some disparity exists in the literature with regard to the duration of training of lay helpers. While some interventions have adopted longer training programmes, such as six weeks (31) and two months (32), the majority of studies of this nature have demonstrated effective outcomes after one to four weeks of training (e.g., 33-37). Briefer training periods are more feasible in many communities with resource- and time-related restrictions.

PM+ thus far implements an eight-day training programme, followed by a two to three week period of in-field practice with ongoing, weekly supervision. Supervision is conducted by skilled mental health professionals who have received PM+ training and have experience in its delivery.

IS PM+ ADAPTABLE ACROSS CONTEXTS?

Many psychological interventions are developed for delivery in high-income contexts, and socio-cultural acceptability is a critical barrier to improving access to effective treatment in LMICs. Chowdhary et al (38) have identified key components that require adaptation in different cultures (e.g. language, content, use of local idioms of distress and metaphors), for which PM+ has sought to uphold.

Socio-cultural adaptations of PM+ to local contexts through formative studies are encouraged prior to implementation of the intervention. Such studies have been carried out in Pakistan and Kenya, confirming that PM+ can provide a template that is adaptable to various contexts.

CONCLUSIONS

The WHO and its partners have produced a low-intensity intervention aimed at reducing symptoms of common mental disorder in people living in communities affected by adversity, whether they are humanitarian settings or low-income urban settings exposed to community violence. PM+ has been developed in response to the urgent need for affordable but evidence-based interventions that are amenable to low-income settings. Specifically and importantly, it is intended for delivery by lay helpers without formal mental health training, representing a feasible psychological intervention for settings with few specialists.

It is hoped that ongoing randomized controlled trials will show that this simple intervention can provide effective care for adults with common mental health problems in communities exposed to adversity in LMICs.

Acknowledgements

The United Nations High Commissioner for Refugees funded the conceptualization phase of the PM+. The opinions expressed in this paper are those of the authors and do not necessarily represent the decisions, policies, or views of the WHO.

References

1. Ferrari AJ, Charlson FJ, Norman RE et al. Burden of depressive disorders by country, sex, age, and year: findings from the global burden of disease study 2010. PLoS Med 2013;10:e1001547.
2. World Health Organization. Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines. Geneva: World Health Organization, 2008.
3. Bennett-Levy J, Richards D, Farrand P et al. Oxford guide to low intensity CBT interventions. Oxford: Oxford University Press, 2010.
4. Patel V, Chowdhary N, Rahman A et al. Improving access to psychological treatment: lessons from developing countries. Behav Res Ther 2011;49:523-8.
5. Collins PY, Patel V, Joestl SS et al. Grand challenges in global mental health. Nature 2011;475:27-30.
6. Clark DM. Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: the IAPT experience. Int Rev Psychiatry 2011;23:318-27.
7. Bower P, Kontopantelis E, Sutton A et al. Influence of initial severity of depression on effectiveness of low intensity interventions: meta-analysis of individual patient data. BMJ 2013;346:1-11.
8. van't Hof E, Stein DJ, Marks I et al. The effectiveness of problem solving therapy in deprived South African communities: results from a pilot study. BMC Psychiatry 2011;11:156-64.
9. Wiley-Exley E. Evaluations of community health care in low and middle income countries: a 10 year review of the literature. Soc Sci Med 2007;64:1231-41.
10. Bass J, Neugebauer R, Clougherty KF et al. Group interpersonal psychotherapy for depression in rural Uganda: 6-month outcomes: randomised controlled trial. Br J Psychiatry 2006;188:567-73.
11. Rahman A, Malik A, Sikander S et al. Cognitive Behaviour Therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised trial. Lancet 2008;372:902-9.
12. Bolton P, Lee C, Haroz EE et al. A transdiagnostic community-based mental health treatment for comorbid disorders: development and outcomes of a randomized controlled trial among Burmese refugees in Thailand. PLoS Med 2014;11:e1001757.
13. McEnvoy PM, Nathan P, Norton PJ. Efficacy of transdiagnostic treatments: a review of published outcome studies and future research directions. J Cogn Psychother 2009;23:20-33.
14. Wilamowska ZA, Thompson-Hollands J, Fairholme CP et al. Conceptual background, development, and preliminary data from the unified protocol for transdiagnostic treatment of emotional disorders. Depress Anxiety 2010;27:882-90.
15. Bullis JR, Fortune MR, Farchione TJ et al. A preliminary investigation of the long-term outcome of the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders. Compr Psychiatry 2014;55:1920-7.
16. Murray LK, Dorsey S, Haroz EE et al. A common elements treatment approach for adult mental health problems in low- and middle-income countries. Cogn Behav Pract 2014;21:111-23.
17. Barlow DH, Allen LB, Choate ML. Toward a unified treatment for emotional disorders. Behav Ther 2004;35:205-30.
18. Bisson J, Andrew M. Psychological treatment of post-traumatic stress disorder (PTSD). Cochrane Database Syst Rev 2007;3:CD003388.
19. Dua T, Barbui C, Clark N et al. Evidence-based guidelines for mental, neurological, and substance use disorders in low- and

middle-income countries: summary of WHO recommendations. PLoS Med 2011;8:1-11.
20. Jorm AF, Morgan AJ, Hetrick SE. Relaxation for depression. Cochrane Database Syst Rev 2008;4:CD007142.
21. Tol WA, Barbui C, van Ommeren M. Management of acute stress symptoms, PTSD, and bereavement: recommendations from the WHO Guideline Development Group for Conditions Specifically Related to Stress. JAMA 2013;310:477-8.
22. D'Zurilla TJ, Goldfried MR. Problem solving and behavior modification. J Abnorm Psychol 1971;78:107-26.
23. Bowen D, Scogin F, Lyrene B. The efficacy of self-examination therapy and cognitive bibliotherapy in the treatment of mild to moderate depression. Psychother Res 1995;5:131-40.
24. Cuijpers P, van Straten A, Warmerdam L. Problem solving therapies for depression: a meta-analysis. Eur Psychiatry 2007;22:9-15.
25. Ferster CB. A functional analysis of depression. Am Psychol 1973;28:857-70.
26. Lewinsohn PM. A behavioral approach to depression. In: Freidman RJ, Katz M (eds). The psychology of depression: contemporary theory and research. Oxford: Wiley, 1974:157-78.
27. Cuijpers P, van Straten A, Warmerdam L. Behavioral activation treatments of depression: a meta-analysis. Clin Psychol Rev 2007; 27:318-26.
28. Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. J Consult Clin Psychol 2000;68:748-66.
29. Lowe SR, Rhodes JE. Trajectories of psychological distress among low-income, female survivors of Hurricane Katrina. Am J Orthopsychiatry 2013;83:398-412.
30. Schweitzer R, Melville F, Steel Z et al. Trauma, post-migration living difficulties, and social support as predictors of psychological adjustment in resettled Sudanese refugees. Aust N Zeal J Psychiatry 2006;40:179-88.
31. Neuner F, Onyut PL, Ertl V et al. Treatment of posttraumatic stress disorder by trained lay counselors in an African refugee settlement: a randomized controlled trial. J Consult Clin Psychol 2008;76:686-94.
32. Patel V, Weiss HA, Chowdhary N et al. Effectiveness of an intervention led by lay health counselors for depressive and anxiety disorders in primary care in Goa, India (MANAS): a cluster randomized controlled trial. Lancet 2010;376:2086-95.
33. Ali BS, Rahbar MH, Naeem S et al. The effectiveness of counselling on anxiety and depression by minimally trained counselors: a randomized controlled trial. Am J Psychother 2003;57:324-36.
34. Araya R, Rojas G, Fritsch R et al. Treating depression in primary care among low-income women in Santiago, Chile: a randomised controlled trial. Lancet 2003;361:995-1000.
35. Bolton P, Bass J, Neugebauer R et al. Group interpersonal psychotherapy for depression in rural Uganda: a randomized controlled trial. JAMA 2007;289:3117-24.
36. Bolton P, Bass J, Betancourt T et al. Interventions for depression symptoms amongst adolescent survivors of war and displacement in northern Uganda: a randomized controlled trial. JAMA 2007; 298:519-28.
37. Chibanda D, Mesu P, Kajawu L et al. Problem-solving therapy for depression and common mental disorders in Zimbabwe: piloting a task-shifting primary mental health care intervention in a population with a high prevalence of people living with HIV. BioMed Central Public Health 2011;11:1-10.
38. Chowdhary N, Jotheeswaran AT, Nadkarni A et al. The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: a systematic review. Psychol Med 2014; 44:1131-46.

DOI 10.1002/wps.20255