Uses of Strength-Based Interventions for people with serious mental illness: A critical review

Journal:	*International Journal of Social Psychiatry*
Manuscript ID	ISP-15-0147.R1
Manuscript Type:	Review Article
Date Submitted by the Author:	n/a
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Keywords:	case management , recovery, positive psychology, community mental health
Abstract:	Background: For the past three decades, mental health practitioners have increasingly adopted aspects and tools of strengths-based approaches. To provide strengths-based intervention and to amplify strengths relies heavily on effective interpersonal processes. Aim: This paper is a critical review of research regarding the use of strengths-based approaches in mental health service settings. The aim is to discuss strengths-based interventions within broader research on recovery, focusing on effectiveness and advances in practice where applicable. Method: A systematic search for peer-reviewed intervention studies published between 2001 and December 2014 yielded 55 articles of potential relevance to the review. Results: Seven studies met the inclusion criteria and were included in the analysis. The Quality Assessment Tool for Quantitative Studies was used to appraise the quality of the studies. Our review found emerging evidence that the utilisation of a strengths-based approach improves outcomes including hospitalisation rates, employment/educational attainment, and intrapersonal outcomes such as self-efficacy and sense of hope. Conclusions: Recent studies confirm the feasibility of implementing a high-fidelity strengths-based approach in clinical settings and its relevance for practitioners in healthcare. More high quality studies are needed to further examine the effectiveness of strengths-based approaches.

Title: Uses of strength-based interventions for people with serious mental illness: A critical review

Running title: Review of strength-based interventions

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Abstract

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Conclusions: Recent studies confirm the feasibility of implementing a high-fidelity strengths-based approach in clinical settings and its relevance for practitioners in

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Keywords

Case management, recovery, positive psychology

Introduction

Serious mental illnesses and their associated symptoms are distressing and debilitating for individuals experiencing the conditions, as well as for families and concerned significant others (Petrakis, Bloom, & Oxley, 2014; Sin, Moone, & Newell, 2007). With the advent of medications that reduce many distressing symptoms, there has been considerable advocacy focusing on personal recovery (Anthony, 1993; Liberman & Kopelowicz, 2002; Roberts & Wolfson, 2004). Strengths-based approaches represent an articulation of mental health's philosophy on recovery (Anthony, 1993; Leamy, Bird, Le Boutillier, Williams, & Slade, 2011; Whitley, 2010). Although promoting wellbeing or building on a person's strengths are hardly new concepts to mental health practitioners, qualities such as self-efficacy, social problem solving, sense of purpose, empathy, humour, resilience, and hope have only been systematically studied in recent decades (Norman, 2000; Whitley, 2010). As such, a team of researchers sought to quantify strengths in a systematic manner (Linley et al., 2007). In their attempt, an exhaustive review was conducted for literature in psychology, philosophy and social work, and 24 character strengths (e.g., creativity, persistence, social intelligence and hope) were subsequently identified that are considered to underpin our universal

understanding of the latent construct of 'character strengths' as applying to the general population.

Regarding the operationalization of strengths-based practices, Norman (2000) categorized strengths into two levels. The first level is personal level, and the indicators of strengths are self-efficacy, realistic appraisal of the environment, social problem-solving, sense of direction or mission, empathy, humour, adaptive distancing and androgynous sex role behaviour. The second level is called the interpersonal level, and the indicators in this level are positive caring relationships, positive family environment or other forms of intimate environment that help to foster resiliency and strengths.

Across the range of strengths-based approaches to mental health care, there is a focus on inter-personal processes working with the strengths of the individual and their community to achieve client-defined goals and personal recovery (Slade, 2009; Smith-Merry, Freeman, & Sturdy, 2011). The underpinning of these approaches is the philosophical commitment to attending to human capacity first rather than human deficiency (Scott & Wilson, 2011). It assumes that every person can build a meaningful and satisfying life defined by an individual's own terms (Rapp & Goscha, 2012). Rapp and Goscha (2012, see 'The purpose, principles, and research results' pp.51-69) and

Marty, Rapp, and Carlson (2001) provide a useful account of what constitutes the critical elements of strengths-based intervention approach.

The present paper is a critical review of research (for typology of reviews, see Grant & Booth, 2009) on strengths-based approaches, which is one of the seven pro-recovery practices mentioned in an earlier publication by Slade et al. (2014). The present authors are experts from five countries. The aim is to present and discuss pertinent issues surrounding strengths-based practices within broader research on recovery, with a focus on effectiveness and cross-cultural analysis. The three research questions are: (1) What are the general characteristics of the studies selected for the present review (including specific cultural elements)? (2) What is the empirical evidence for the effectiveness of strengths-based practice with regard to specific outcome measures (including if there is any evidence of negative effects)? (3) What are the advances in practice or new features revealed in the present review, compared with the last empirical review of effectiveness of the strengths perspective by Staudt, Howard, and Drake (2001)?

Methods

Data sources

We searched six electronic databases for studies published between 2001 and December 2014: Applied Social Sciences Index and Abstracts, PsycArticles, PsycInfo, Social Services Abstracts, Sociological Abstracts, and MEDLINE. Studies published prior to 2001 were excluded because another empirical review published in 2001 covered these earlier studies (Staudt et al., 2001). The search terms used included two components: (i) intervention: 'strengths model'; or 'strengths-based' or 'strengths perspective' and (ii) clinical condition: 'mental illness'; or 'bipolar'; or 'schizophrenia' or 'psychiatr*'. Following the initial search, two independent reviewers (ST and ET) screened titles and abstracts. The full texts of potentially relevant peer-reviewed papers on intervention studies were further examined to determine eligibility (Figure 1). Any discrepancies in judgment were settled by a discussion between the two reviewers.

<Insert Figure 1 Here>

Inclusion and exclusion Criteria

A study was included in the review if it satisfied all of the following criteria: (i) published in or after 2001, (ii) published in a peer-reviewed journal, (iii) written in English, (iv) was an intervention study using strengths-based intervention as the treatment, (v) provided a description of the intervention in the article, and (vi) used any

quantitative design (i.e., randomized controlled trial or other quasi-experimental type studies). The inclusion criteria were consistent with the nature of critical review and were chosen to ensure that the included studies will address the set research questions (Grant & Booth, 2009). Because Blow and colleagues' (2000) research was not included in the earlier review by Staudt and colleagues (2001), we included it in this review. We excluded qualitative studies and opinion/commentary papers because they did not include empirical evidence on the effectiveness of strengths-based interventions, which was our second research question.

Quality assessment

The quality of the studies was assessed using the *Quality Assessment Tool for Quantitative Studies* developed by the Effective Public Heath Practice Project of McMaster University, Canada (National Collaborating Centre for Methods and Tools, 2008). We assessed both the internal and external validity of a study, as well as the following criteria: (i) selection of participants, (ii) study design, (iii) confounders, (iv) blinding, (v) data collection methods, (vi) attrition, (vii) statistical analysis, and (viii) intervention integrity. This tool has been deemed appropriate and satisfactory for assessing the risk of bias in public health research (Armijo-Olivo, Stiles, Hagen, Biondo, & Cummings, 2012). The ratings for each component are computed into a single global

rating score for the study, with zero weak ratings indicating a 'strong' rating overall, one weak rating indicating a 'moderate' rating, and two or more weak ratings indicating a 'weak' rating (National Collaborating Centre for Methods and Tools, 2008). The two reviewers (ST and ET) independently carried out the quality appraisal and any discrepancies were settled following discussions between the two reviewers and members of the wider author team. Every team member helped to evaluate the interpretations of the results and to write specific sections of the manuscripts.

Results

Selection of studies

The search terms generated 619 articles, not including duplications already removed by the databases. We then identified 55 studies that provisionally met the inclusion criteria for peer-reviewed intervention studies. After obtaining the full texts of these 55 articles, 48 articles were excluded as they did not meet the inclusion criteria for a variety of reasons (Figure 1). For example, some of the articles that were excluded focused on the conceptual or theoretical aspects of strengths-based approaches or the development of measurement scales, and in some other cases, although the word 'strength' was referred to in the published studies, no detail was provided about how a strengths-based

approach was executed in the intervention. Hence, only the seven articles that met inclusion criteria were included in the review.

Quality assessment

The overall agreement rate between the two reviewers was 71%, and discrepancies were settled after discussion and clarifying interpretation of the studies. Table 1 presents the results of the quality assessments of the studies. Overall, the majority of the studies were of moderate to weak quality. Of the seven studies, four did not describe or control for confounders in the analysis, and four studies received a 'weak' score for the blinding component, which meant that blinding was either not incorporated into the study design or not described in the article.

<Insert Table 1 Here>

Study characteristics

All of the studies were conducted in developed, high income, Western countries such as the United States, Canada (Mireau & Inch, 2009), and Sweden (Björkman, Hansson, & Sandlund, 2002). All of the participants were adults already known to mental health services and affected by severe and persistent mental illness. The studies had diverse

research designs: randomised controlled trials, pre-post designs, between-group comparison, and mixed methods (qualitative and quantitative); follow-up periods for the studies varied between eight and 36 months (Table 1). The most common research designs were cohort studies with non-randomised controls. Only one study's design achieved a 'strong' global rating (Green, Janoff, Yarborough, & Paulson, 2013). Three others were rated as 'moderate' (Barry, Zeber, Blow, & Valenstein, 2003; Björkman et al., 2002; Blow et al., 2000), and the other three as 'weak' (Fukui, Davidson, Holter, & Rapp, 2010; Fukui et al., 2012; Mireau & Inch, 2009).

There was also considerable confounding of the strengths-based approach within the complex, multifaceted interventions, making it difficult to attribute outcomes to this element as opposed to other variables. In a previous review, Staudt et al. (2001) commented that 'The effects of treatment modality and treatment intensity were confounded in these studies… It is unknown whether it was simply the additional services or specific type of services provided that contributed, in some cases, to improved outcomes' (Staudt *et al.*, 2001, p.17). This comment remains accurate.

Effectiveness of strengths-based interventions

The results suggest that a strengths-based approach is associated with (i) reducing the duration of stay in hospital (Björkman et al., 2002; Blow et al., 2000; Fukui et al., 2012); (ii) increasing service satisfaction (Björkman et al., 2002); (iii) improving general attitudes with respect to recovery-relevant dimensions (e.g., self-esteem, self-efficacy, personal confidence, sense of hope, life satisfaction; Barry et al., 2003; Fukui et al., 2010; Green et al., 2013); (iv) facilitating greater goal attainment (i.e., improving employment and educational outcomes; (Green et al., 2013); and (v) general increased utilisation of services (Barry et al., 2003; Mireau & Inch, 2009). In Mireau and Inch's (2009) study, these positive changes were reflected in increased job satisfaction and improved staff morale: 'Optimism and hopefulness directed toward the client is contagious, with counsellors having increased job satisfaction and morale while clients experience success in achieving their goals' (Mireau & Inch, 2009, p.68). However these improvements should be interpreted with caution given the variable quality of the research designs and evidence (Table 1).

There was one instance of negative results. Björkman et al. (2002) found that the group receiving strengths-based case management had *worse* social network and symptom scores post-intervention when compared with the group receiving standard care. The outcomes in relation to symptom improvement were also inconclusive (Barry et al.,

2003; Björkman et al., 2002; Fukui et al., 2010; Green et al., 2013). In an earlier commentary, due to the seriousness of psychiatric symptomatology such as suicidality and persecutory delusions, Taylor (2006) strongly cautioned against using only a strengths-based approach completely isolated from medical treatment approaches.

Advances in practice

Staudt et al. (2001) concluded in their earlier review that 'It remains unclear whether and how strengths-based CM (case management) differs from other CM models and what components are unique only to strengths-based CM' (Staudt *et al.*, 2001, p.17). This highlights the need for a clearer specification of strengths-based intervention, and it is therefore reassuring that, in the present sample, six out of the seven selected studies (Barry et al., 2003; Björkman et al., 2002; Fukui et al., 2010; Fukui et al., 2012; Green et al., 2013; Mireau & Inch, 2009) included descriptions of what strengths-based practices entail. For example, they cited the *Pathways to Recovery* (Ridgway & Bledsoe, 2002, cited in Fukui et al., 2010) and the *Strengths-Based Brief Solution-Focused Counselling* (cited in Mireau & Inch, 2009). Another example is the application of the *Strengths Model Case Management* (SMCM; Rapp & Goscha, 2012). In Fukui et al. (2012) study, case management teams were able to reach high SMCM fidelity, which meant that SMCM was being implemented (Table 2). Several studies compared

strengths approaches with Assertive Community Treatment (ACT), a well-defined model that includes a similarly high level of intensity to SMCM. Nevertheless, there was variability in the degree of detail provided regarding the interventions that were used. Direct measures of strengths were weak.

In one of the later studies, the engagement of peer supporters working with professionals in providing a strengths-based group programme highlighted an important new development (Green *et al.*, 2013). Peer supporters or peer support workers refer to individuals with lived experience of mental illness who are recruited, trained, and supported to use this experience to support other peers during recovery (Davidson, Bellamy, Guy, & Miller, 2012; Repper & Carter, 2011).

<Insert Table 2 Here>

Discussion

Study design and intervention effectiveness

The overall results of this critical review are comparable to the results of a recent meta-analysis of clinical trials of strengths-based practice (Ibrahim, Michail, & Callaghan, 2014). First, both the current critical review and recent meta-analysis considered that

only a small number of clinical studies met the requirement of a moderate level of quality (Barry et al., 2003; both of these trials were included in the present review and the meta-analysis; Björkman et al., 2002). There is a pressing need for further good quality, well-designed clinical trials to examine the effectiveness of strengths-based practices. Second, both of the reports have found that the effect of strengths-based interventions on service users' level of symptoms was either inconclusive (e.g., Björkman et al., 2002; Green et al., 2013) or less favourable in comparison to other service delivery models (Ibrahim et al., 2014). On the other hand, compared to the study by Ibrahim et al. (2014), the present review holds a more positive view of strengths-based approaches. For example, the present review found that the approach was associated with some favourable employment and educational outcomes, whereas the meta-analysis found no significant difference between the strengths-based approach and other service delivery models. This may be explained by differences in methodological approaches between the two reports.

A critical review is typically narrative by nature, and it aims to provide 'an opportunity to 'take stock' and evaluate what is of value from the previous body of work. It may also attempt to resolve competing schools of thought. As such, it may provide a 'launch pad' for a new phase of conceptual development and subsequent 'testing'' (Grant &

Booth, 2009, p.93). However, a meta-analysis uses 'techniques that statistically combine the results of quantitative studies to provide a more precise effect of the results' (Grant & Booth, 2009, p.94). The analysis by Ibrahim et al. (2014) included five studies between 1991 and 2003 and all the studies had control groups. The current review included seven studies between 2000 and 2013, and six of the studies had a control-group design.

Comprehensive application of a strengths-based approach

The current review found that there was improved but still limited operationalization of strengths-based practices. Below, we discuss each stage briefly: assessment, intervention, and monitoring.

It is possible to conduct a strengths assessment in mental health service delivery contexts and practice. A systematic review identified 12 published approaches to strengths assessment: five quantitative measures and seven qualitative methods (Bird et al., 2012). The Strengths Assessment Worksheet (SAW) is the most widely utilized and evaluated qualitative assessment method (Rapp & Goscha, 2006, 2012). The Client Assessment of Strengths, Interests and Goals (CASIG) has the strongest psychometric evidence (Lecomte, Wallace, Caron, Perreault, & Lecomte, 2004), and the SAW and

CASIG assessments have been tentatively recommended for use in practice. Other approaches to assessing strengths have also been published, such as use of the VIA-Strengths (Park, Peterson, & Seligman, 2006) approach in mental health services (Resnick & Rosenheck, 2006).

To provide strengths-based intervention and to amplify strengths is a person-centred process. Interpersonal styles such as coaching are helpful in facilitating a focus on strengths (Bora, 2012; Shepherd, Boardman, & Slade, 2008). The present review underlines the high level of engagement that is fostered by the strengths approach, the significance of the level/intensity of contact, the active and outreaching role of workers (including peer supporters) that arise from the approach. Blow et al. (2000) matched the intensive contact and practical outreach elements across ACT and SMCM and found positive outcomes. Assertiveness alone may not be well received. The service users also value the positive tone, warmth of engagement, and prize the optimistic tone of strengths-focused brief interventions (Mireau & Inch, 2009).

Finally, on the basis of our review, it appears that routine monitoring and reviewing of strengths is rarely implemented. This process involves the assessment of current and potential strengths, the activation and use of these strengths, and ambitious but not

unrealistic goal setting around the acquisition of new or amplified strengths. The most developed approach to integrating a focus on strengths into routine monitoring is the SMCM (Rapp & Goscha, 2012 cited in Fukui et al., 2012). Practice change has been achieved through staff training and the introduction of new strengths-based assessments, planning tools, and team discussions (Petrakis, Wilson, & Hamilton, 2013) based on Rapp and Goscha's (2012) tools and guidelines.

The role of peer support workers in strengths-based practice

Two studies have assessed the impact of *Pathways to Recovery* (Ridgway & Bledsoe, 2002) support groups on participants—one on peer-led groups (Fukui et al., 2010) and the other on groups co-led by a peer counsellor and a non-peer counsellor (Green et al., 2013). Both studies found considerable improvements across multiple domains including hope, self-efficacy, and social support. Further research is needed to understand how peer supporters can enhance the impact of strengths-based approaches.

Strengths-based approaches emphasize personal and environmental strengths, as well as recognition of the character-building impact of trauma and mental distress (Peterson, Park, & Seligman, 2006; Tse, Divis, & Li, 2010). Peer supporters may have a distinct advantage over non-peer workers when it comes to personifying and practising these

principles. For instance, peer supporters can act as powerful role models precisely because their job requires lived experience (Davidson et al., 2012), or they can amplify a client's hope that they too can utilise strengths to move beyond their distress (Sells, Davidson, Jewell, Falzer, & Rowe, 2006). Peer support is also embedded in recovery philosophy and shares similar origins with the consumer or survivor movement (for recent reviews on effectiveness of peer support services, see Chinman et al., 2014; Lloyd-Evans et al., 2014; Trachtenberg, Parsonage, Shepherd, & Boardman, 2013).

Applying strengths-based practices cross-culturally

All of the selected studies in this review were conducted in Western cultures, and beliefs with regards to one's mental health, expressions of emotions, and strengths are heavily influenced by culture (Leamy et al., 2011; Tse, Cheung, Kan, Ng, & Yau, 2012; Tse et al., 2010). The notion of 'strengths' in non-Western cultures is under-researched. The conceptualization of strengths—the forms of linguistics, metaphors, icons, or folklore traditions—is culturally specific. In Chinese, the word 'strengths' is commonly understood as 優勢 (*youshi* or superiority), 強項 (*qiangxiang* or forté), or 潛能 (*qianneng* or potential). Bamboo, an evergreen plant commonly seen across Asia that thrives even in harsh weather conditions, is often used as a metaphor for strengths and

uprightness. In Chinese, Japanese, and Vietnamese cultures, bamboo is viewed as a virtuous symbol of tenacity and perseverance.

It is imperative to understand how cultural variations should be taken into account in the interpretation of 'strengths'. For instance, people in Chinese communities (in some case including Korean and Japanese communities) are heavily influenced by Confucianism, Taoism, and Buddhism (M. H. Bond, 2010; Chen & Davey, 2008; Lu, 2001), which 'advocate spiritual cultivation and mind-work, such as self-retrospection and self-transcendence, they admonish people to eliminate excessive desires, live a simple life and restore a clear mind' (Lai, Cummins, & Lau, 2013, p.608). Chinese people under the influence of traditional culture may interpret 'empowerment' as a challenge to deep-rooted ideas of Confucianism that emphasizes self-sacrifice, harmony, benevolence, and forgiveness. Similarly, under Taoism, people tend to be more modest and they less readily name their strengths, successes, and talents (Tse et al., 2010). Therefore mental health practitioners need to be creative and culturally sensitive when helping service users in exploring and identifying the strengths and virtue of characters within themselves and the wider environment.

In the present authors' research and clinical work, we found it helpful to highlight specific domains and invite service users to identify what they consider as their sources of strength: personal (i.e., knowledge, academic qualifications, life experience, talents, problem-solving skills, live skills, interests, character, and attitude towards life), career/occupation, religious/spiritual sphere, family, colleagues at work, friends, neighbourhoods, social groups (formal or less formal), or the wider community.

Directions for policy, future research, and service provision

Strengths-based, recovery-oriented approaches are increasingly relevant to and welcomed by policy makers. An example is the Irish Mental Health Commission report 'A recovery approach within the Irish mental health services: A framework for development' (Higgins, 2008) as well as a report launched by the Commonwealth of Australia, 'A national framework for recovery-oriented mental health services: Policy and theory' (Australian Health Ministers' Advisory Council, 2013). Further research in non-Western settings is important, especially considering cultural differences regarding the definition and conceptualization of strengths as noted in this review. Also, there may be cultural differences within nation states, particularly regarding ethnic minorities, indigenous people, and immigrants. Another gap in research relates to the implementation of strengths-based approaches in routine mental health settings (G. R.

Bond, Drake, McHugo, Rapp, & Whitley, 2009; McHugo et al., 2007; Whitley, Gingerich, Lutz, & Mueser, 2009). Existing research provides little evidence-based guidelines on the best approaches to training staff in strengths-based approaches. This is critically important given that much clinical training continues to focus on deficits and symptoms, fostering a paternalistic attitude toward patients (O'Hagan, 2004; Slade, Adams, & O'Hagan, 2012; Whitley, 2014). Adopting a strengths-based approach may require a 180 degree turn away from embedded attitudes of 'clinician knows best.' Finally, to support an individual to maximise one's own strengths and work toward his/her own goals, there must be a transformation within the workplace, as well as a change in the system's culture (Shepherd, Boardman, & Burns, 2010; Tew et al., 2012).

To conclude, there is a need for more high quality studies to further examine the effectiveness of strengths-based approaches. This review has revealed emerging evidence that the utilisation of a strengths-based approach is effective for yielding desirable outcomes, including 'hard' outcomes such as duration of hospitalization, adherence to treatment, and employment/educational attainment, as well as 'soft' outcomes such as self-esteem, self-efficacy, and sense of hope. Strengths-based approaches emphasize the autonomy, assets, and goals of the individual client, and practitioners are considered facilitators of the recovery process. Successful

implementation of a high-fidelity strengths-based approach in clinical settings requires collaboration from service users, staff, administrators, and policy makers.

Conflict of interest

The authors declare that there is no conflict of interest.

Funding acknowledgement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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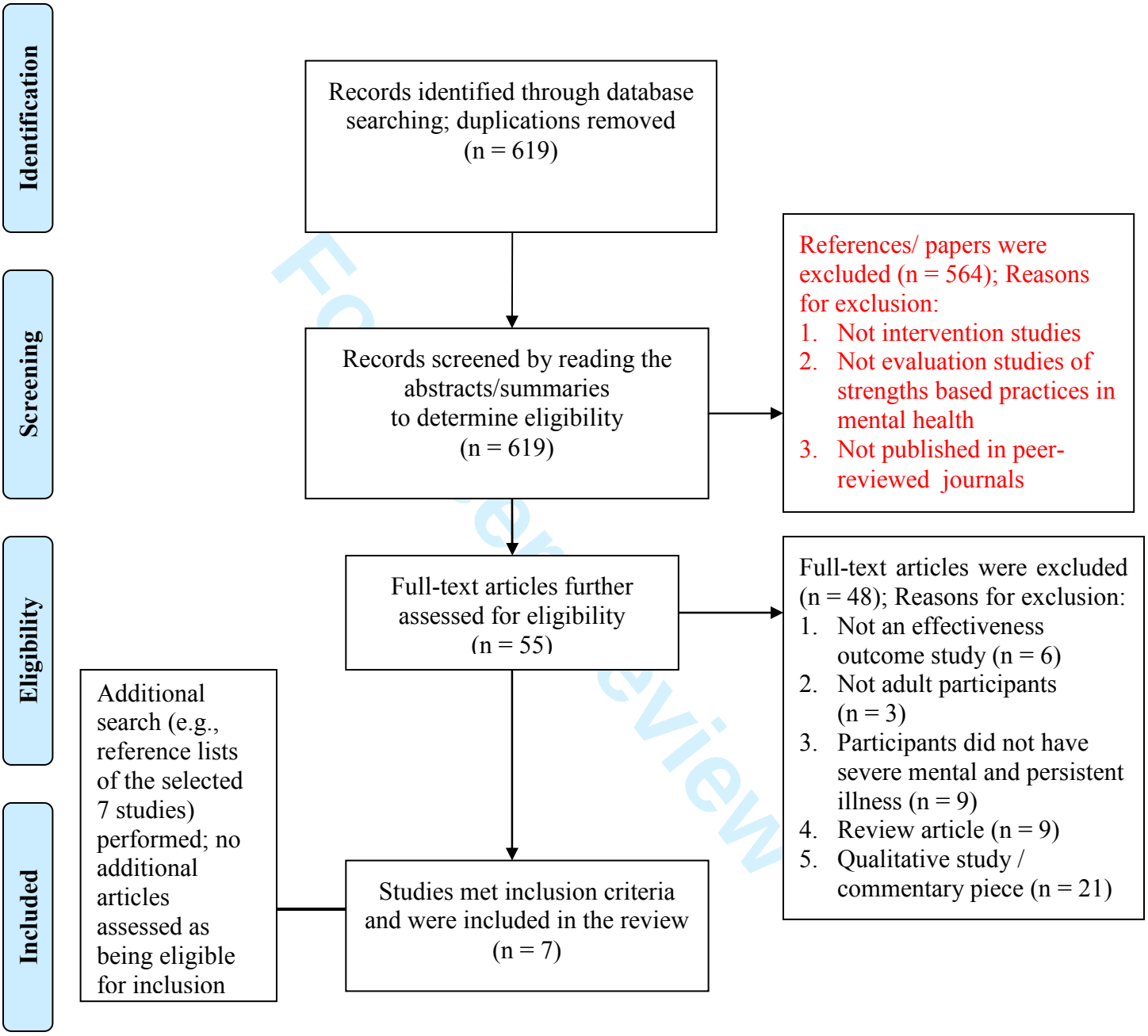

Figure 1. Flow chart showing the summary of the literature search of strengths-based intervention studies.

Table 1. Quality Assessment of Selected Studies

Authors	Selection Bias	Study Design	Confounders	Blinding	Data collection method	Withdrawals and dropouts	GLOBAL RATINGS: Strong= no '3' rating Moderate= one '3' rating Weak= two or more '3' ratings	Agreement between reviewers' Global Ratings (Yes/No)
1. Blow et al., 2000	2	2	1	3	1	1	Moderate	Yes
2. Björkman et al., 2002	2	1	3	2	1	1	Moderate	No
3. Barry et al., 2003	2	2	1	3	1	1	Moderate	No
4. Mireau and Inch, 2009	2	2	3	2	3	3	Weak	Yes
5. Fukui et al., 2010	2	2	3	3	1	1	Weak	Yes
6. Fukui et al., 2012	2	2	3	3	2	Not Applicable	Weak	Yes
7. Green et al., 2013	2	1	1	2	1	1	Strong	Yes
							Reviewers' agreement =	71%

Notes:
Item quality ratings: 1 = Strong; 2 = Moderate; 3 = Weak (for details on rating descriptors, see National Collaborating Centre for Methods and Tools, 2008)

Table 2. Table 2. Characteristics of Studies Included in this Critical Review

Author(s)	Sample Size (people with severe mental illness)	Study design	Control group	Intervention group	Description of strengths-based intervention	Results
1. Blow and colleagues (2000)	n=1,425, attrition at 32%, final n=861	Intervention-control groups design; 3-year follow up	Standard care: Traditional inpatient treatment	Three intervention subgroups: 1) Sustained treatment and rehabilitation (STARii) transitional inpatient programme; 2) Day treatment centres (DTCs); 3) Assertive community treatment (ACT) and strengths model(SM)	1) Inpatient rehabilitation incorporating several psychosocial rehabilitation components and functional skills training; 2) Partial hospitalization, structured outpatient programme, 10-25 hours/week; 3) Programme was based on ACT and SM* (Rapp and Wintersteen, 1989).	ACT users had greatest decrease in days of hospitalization (-85%), followed by DTC (-64%), STARii (-44%), and standard care (-16%). Significant three-way interaction effect of time-by-program-by diagnosis. Decreased in psychiatric symptoms for patients in STARii and ACT programmes; DTC patients became more symptomatic. ACT programme appeared to have best outcomes, but best approach for users with more serious symptoms would be to begin with STARii.
2. Björkman and colleagues (2002)	n=77	Randomized controlled trial, 36-month follow up (baseline, 18- and 36-month)	Standard care: Joint management for outpatient and inpatient, and day-care facilities, small therapeutic communities	Strengths model of case management service (SCM)	SCM* (Mueser *et al.,* 1998): Moderate emphasis on skills training and high-level service users' input; less emphasis on integration of services.	SCM was effective in the following ways: 1) Improving service satisfaction; 2) Greater reduction in need for care at 36-month follow-up; 3) Fewer days in psychiatric inpatient care. SCM group had worse social network and more symptoms at baseline compared with standard care group.
3. Barry and colleagues (2003)	n=225, attrition at 22.7%, final n=174	Intervention-control groups design; 2-year follow up	ACT (Wisconsin model)	Strengths model (SM1)	SM1* (Saleebey, 1996): Patient-centred focused on finding membership in community; training, booster sessions, group training to ensure fidelity.	SM was effective in: 1) Increasing service utilisation; 2) Reducing positive and negative symptoms; 3) Improving global life satisfaction.
4. Mireau and Inch (2009)	n=1,370	Intervention-control groups design; 3-year follow up	Regular non-time-limited counselling	Strengths-based, brief solution-focused counselling (BSFC)	BSFC* (Blundo, 2001; Saleebey, 2002): Counsellors engaged clients quickly, formed a relationship with them, and kept them focused on strengths, goals, and priorities; limited to 10 sessions.	BSFC users liked the idea of focusing on strengths. Less than 1% decided to switch to non-time-limited counselling. Dropout rate in brief therapy was half that of clients in long-term therapy. Users were

						more likely to plan to end their counselling relationship in the BSFC programme than in the non-time-limited services.
5. Fukui and colleagues (2010)	n=47, attrition at 32%, final n=32	Pre-post design; 8-month follow up	No control group; compared to results of baseline measures	Pathways to Recovery (PTR): A Strengths Recovery Self-Help Workbook	PTR* (Ridway and Bledsoe, 2002 which is largely grounded in the work by Rapp and Goscha, 2012): Users identified and pursued life goals on the basis of on personal and environmental strengths. Used self-help groups with less hierarchical relations among peers. Users completed self-assessments and action plans to observe accomplishments and to sustain motivation toward recovery.	Statistically significant improvements for PTR participants in terms of self-esteem, self-efficacy, social support, spiritual well-being, and psychiatric symptoms.
6. Fukui and colleagues (2012)	n=1,195, attrition at 33%, final n=802	Pre-post design	No control group; compared to results of baseline measures (fidelity scores and psychosocial outcomes)	Strengths model of case management (SMCM)	SMCM* (Rapp and Goscha, 2012): Goal oriented. Low caseload sizes, low supervisor-to-case manager ratio. Weekly group supervision using structured format for case presentations. Administered strengths assessment. Used personal recovery plan tools and naturally occurring resources to achieve goals; in-person service delivery.	SMCM users improved in terms of the following outcomes: competitive employment, psychiatric hospitalization, and post-secondary education rates. Service users' improvement depended on fidelity scores except in the case of independent living.
7. Green (2013)	n=82, across 5 cohorts, final n=70	Five cohorts. Cohort 1: Feasibility pilot study and development of materials. Cohorts 2+3: Ten-week randomized controlled trial (RCT) Cohort 3: delayed-intervention control group. Cohorts 4+5: Pre-post	Cohort 3: delayed-intervention control group	Strengths-based group intervention, based on service user-developed recovery workbook PTR	Groups co-facilitated by a professional mental health counsellor and a trained peer counsellor. Participants also used PTR workbook (Ridgway *et al.,* 2002).	User-developed workbook was useful. Users also reacted positively to having peer co-leaders. Duration of intervention was important; users needed enough time for reflection to work through exercises and explore key topics (about 17-18 weeks). Significant reduction of mental health symptoms and significant improvements in functioning, personal confidence, and hope were noted. Lastly, users demonstrated greater goal and success orientation.

*Notes: Key references on strength-based approaches

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(931 words)

Title: Uses of Strength-Based Interventions for people with serious mental illness: A critical review

Abstract

Background: For the past three decades, mental health practitioners have increasingly adopted aspects and tools of strengths-based approaches. To provide strengths-based intervention and to amplify strengths relies heavily on effective interpersonal processes.

Aim: This paper is a critical review of research regarding the use of strengths-based approaches in mental health service settings. The aim is to discuss strengths-based interventions within broader research on recovery, focusing on effectiveness and advances in practice where applicable.

Method: A systematic search for peer-reviewed intervention studies published between 2001 and December 2014 yielded 55 articles of potential relevance to the review.

Results: Seven studies met the inclusion criteria and were included in the analysis. The *Quality Assessment Tool for Quantitative Studies* was used to appraise the quality of the studies. Our review found emerging evidence that the utilisation of a strengths-based approach improves outcomes including hospitalisation rates, employment/educational attainment, and intrapersonal outcomes such as self-efficacy and sense of hope.

Conclusions: Recent studies confirm the feasibility of implementing a high-fidelity strengths-based approach in clinical settings and its relevance for practitioners in

healthcare. More high quality studies are needed to further examine the effectiveness of strengths-based approaches.

Keywords

Case management, recovery, positive psychology

Introduction

Serious mental illnesses and their associated symptoms are distressing and debilitating for individuals experiencing the conditions, as well as for families and concerned significant others (Petrakis, Bloom, & Oxley, 2014; Sin, Moone, & Newell, 2007). With the advent of medications that reduce many distressing symptoms, there has been considerable advocacy focusing on personal recovery (Anthony, 1993; Liberman & Kopelowicz, 2002; Roberts & Wolfson, 2004). Strengths-based approaches represent an articulation of mental health's philosophy on recovery (Anthony, 1993; Leamy, Bird, Le Boutillier, Williams, & Slade, 2011; Whitley, 2010). Although promoting wellbeing or building on a person's strengths are hardly new concepts to mental health practitioners, qualities such as self-efficacy, social problem solving, sense of purpose, empathy, humour, resilience, and hope have only been systematically studied in recent decades (Norman, 2000; Whitley, 2010). As such, a team of researchers sought to quantify strengths in a systematic manner (Linley et al., 2007). In their attempt, an exhaustive review was conducted for literature in psychology, philosophy and social work, and 24 character strengths (e.g., creativity, persistence, social intelligence and hope) were subsequently identified that are considered to underpin our universal

understanding of the latent construct of 'character strengths' as applying to the general population.

Regarding the operationalization of strengths-based practices, Norman (2000) categorized strengths into two levels. The first level is personal level, and the indicators of strengths are self-efficacy, realistic appraisal of the environment, social problem-solving, sense of direction or mission, empathy, humour, adaptive distancing and androgynous sex role behaviour. The second level is called the interpersonal level, and the indicators in this level are positive caring relationships, positive family environment or other forms of intimate environment that help to foster resiliency and strengths.

Across the range of strengths-based approaches to mental health care, there is a focus on inter-personal processes working with the strengths of the individual and their community to achieve client-defined goals and personal recovery (Slade, 2009; Smith-Merry, Freeman, & Sturdy, 2011). The underpinning of these approaches is the philosophical commitment to attending to human capacity first rather than human deficiency (Scott & Wilson, 2011). It assumes that every person can build a meaningful and satisfying life defined by an individual's own terms (Rapp & Goscha, 2012). Rapp and Goscha (2012, see 'The purpose, principles, and research results' pp.51-69) and

Marty, Rapp, and Carlson (2001) provide a useful account of what constitutes the critical elements of strengths-based intervention approach.

The present paper is a critical review of research (for typology of reviews, see Grant & Booth, 2009) on strengths-based approaches, which is one of the seven pro-recovery practices mentioned in an earlier publication by Slade et al. (2014). The present authors are experts from five countries. The aim is to present and discuss pertinent issues surrounding strengths-based practices within broader research on recovery, with a focus on effectiveness and cross-cultural analysis. The three research questions are: (1) What are the general characteristics of the studies selected for the present review (including specific cultural elements)? (2) What is the empirical evidence for the effectiveness of strengths-based practice with regard to specific outcome measures (including if there is any evidence of negative effects)? (3) What are the advances in practice or new features revealed in the present review, compared with the last empirical review of effectiveness of the strengths perspective by Staudt, Howard, and Drake (2001)?

Methods

Data sources

We searched six electronic databases for studies published between 2001 and December 2014: Applied Social Sciences Index and Abstracts, PsycArticles, PsycInfo, Social Services Abstracts, Sociological Abstracts, and MEDLINE. Studies published prior to 2001 were excluded because another empirical review published in 2001 covered these earlier studies (Staudt et al., 2001). The search terms used included two components: (i) intervention: 'strengths model'; or 'strengths-based' or 'strengths perspective' and (ii) clinical condition: 'mental illness'; or 'bipolar'; or 'schizophrenia' or 'psychiatr*'. Following the initial search, two independent reviewers (ST and ET) screened titles and abstracts. The full texts of potentially relevant peer-reviewed papers on intervention studies were further examined to determine eligibility (Figure 1). Any discrepancies in judgment were settled by a discussion between the two reviewers.

<Insert Figure 1 Here>

Inclusion and exclusion Criteria

A study was included in the review if it satisfied all of the following criteria: (i) published in or after 2001, (ii) published in a peer-reviewed journal, (iii) written in English, (iv) was an intervention study using strengths-based intervention as the treatment, (v) provided a description of the intervention in the article, and (vi) used any

quantitative design (i.e., randomized controlled trial or other quasi-experimental type studies). The inclusion criteria were consistent with the nature of critical review and were chosen to ensure that the included studies will address the set research questions (Grant & Booth, 2009). Because Blow and colleagues' (2000) research was not included in the earlier review by Staudt and colleagues (2001), we included it in this review. We excluded qualitative studies and opinion/commentary papers because they did not include empirical evidence on the effectiveness of strengths-based interventions, which was our second research question.

Quality assessment

The quality of the studies was assessed using the *Quality Assessment Tool for Quantitative Studies* developed by the Effective Public Heath Practice Project of McMaster University, Canada (National Collaborating Centre for Methods and Tools, 2008). We assessed both the internal and external validity of a study, as well as the following criteria: (i) selection of participants, (ii) study design, (iii) confounders, (iv) blinding, (v) data collection methods, (vi) attrition, (vii) statistical analysis, and (viii) intervention integrity. This tool has been deemed appropriate and satisfactory for assessing the risk of bias in public health research (Armijo-Olivo, Stiles, Hagen, Biondo, & Cummings, 2012). The ratings for each component are computed into a single global

rating score for the study, with zero weak ratings indicating a 'strong' rating overall, one weak rating indicating a 'moderate' rating, and two or more weak ratings indicating a 'weak' rating (National Collaborating Centre for Methods and Tools, 2008). The two reviewers (ST and ET) independently carried out the quality appraisal and any discrepancies were settled following discussions between the two reviewers and members of the wider author team. Every team member helped to evaluate the interpretations of the results and to write specific sections of the manuscripts.

Results

Selection of studies

The search terms generated 619 articles, not including duplications already removed by the databases. We then identified 55 studies that provisionally met the inclusion criteria for peer-reviewed intervention studies. After obtaining the full texts of these 55 articles, 48 articles were excluded as they did not meet the inclusion criteria for a variety of reasons (Figure 1). For example, some of the articles that were excluded focused on the conceptual or theoretical aspects of strengths-based approaches or the development of measurement scales, and in some other cases, although the word 'strength' was referred to in the published studies, no detail was provided about how a strengths-based

approach was executed in the intervention. Hence, only the seven articles that met inclusion criteria were included in the review.

Quality assessment

The overall agreement rate between the two reviewers was 71%, and discrepancies were settled after discussion and clarifying interpretation of the studies. Table 1 presents the results of the quality assessments of the studies. Overall, the majority of the studies were of moderate to weak quality. Of the seven studies, four did not describe or control for confounders in the analysis, and four studies received a 'weak' score for the blinding component, which meant that blinding was either not incorporated into the study design or not described in the article.

<Insert Table 1 Here>

Study characteristics

All of the studies were conducted in developed, high income, Western countries such as the United States, Canada (Mireau & Inch, 2009), and Sweden (Björkman, Hansson, & Sandlund, 2002). All of the participants were adults already known to mental health services and affected by severe and persistent mental illness. The studies had diverse

research designs: randomised controlled trials, pre-post designs, between-group comparison, and mixed methods (qualitative and quantitative); follow-up periods for the studies varied between eight and 36 months (Table 1). The most common research designs were cohort studies with non-randomised controls. Only one study's design achieved a 'strong' global rating (Green, Janoff, Yarborough, & Paulson, 2013). Three others were rated as 'moderate' (Barry, Zeber, Blow, & Valenstein, 2003; Björkman et al., 2002; Blow et al., 2000), and the other three as 'weak' (Fukui, Davidson, Holter, & Rapp, 2010; Fukui et al., 2012; Mireau & Inch, 2009).

There was also considerable confounding of the strengths-based approach within the complex, multifaceted interventions, making it difficult to attribute outcomes to this element as opposed to other variables. In a previous review, Staudt et al. (2001) commented that 'The effects of treatment modality and treatment intensity were confounded in these studies… It is unknown whether it was simply the additional services or specific type of services provided that contributed, in some cases, to improved outcomes' (Staudt *et al.*, 2001, p.17). This comment remains accurate.

Effectiveness of strengths-based interventions

The results suggest that a strengths-based approach is associated with (i) reducing the duration of stay in hospital (Björkman et al., 2002; Blow et al., 2000; Fukui et al., 2012); (ii) increasing service satisfaction (Björkman et al., 2002); (iii) improving general attitudes with respect to recovery-relevant dimensions (e.g., self-esteem, self-efficacy, personal confidence, sense of hope, life satisfaction; Barry et al., 2003; Fukui et al., 2010; Green et al., 2013); (iv) facilitating greater goal attainment (i.e., improving employment and educational outcomes; (Green et al., 2013); and (v) general increased utilisation of services (Barry et al., 2003; Mireau & Inch, 2009). In Mireau and Inch's (2009) study, these positive changes were reflected in increased job satisfaction and improved staff morale: 'Optimism and hopefulness directed toward the client is contagious, with counsellors having increased job satisfaction and morale while clients experience success in achieving their goals' (Mireau & Inch, 2009, p.68). However these improvements should be interpreted with caution given the variable quality of the research designs and evidence (Table 1).

There was one instance of negative results. Björkman et al. (2002) found that the group receiving strengths-based case management had *worse* social network and symptom scores post-intervention when compared with the group receiving standard care. The outcomes in relation to symptom improvement were also inconclusive (Barry et al.,

2003; Björkman et al., 2002; Fukui et al., 2010; Green et al., 2013). In an earlier commentary, due to the seriousness of psychiatric symptomatology such as suicidality and persecutory delusions, Taylor (2006) strongly cautioned against using only a strengths-based approach completely isolated from medical treatment approaches.

Advances in practice

Staudt et al. (2001) concluded in their earlier review that 'It remains unclear whether and how strengths-based CM (case management) differs from other CM models and what components are unique only to strengths-based CM' (Staudt *et al.*, 2001, p.17). This highlights the need for a clearer specification of strengths-based intervention, and it is therefore reassuring that, in the present sample, six out of the seven selected studies (Barry et al., 2003; Björkman et al., 2002; Fukui et al., 2010; Fukui et al., 2012; Green et al., 2013; Mireau & Inch, 2009) included descriptions of what strengths-based practices entail. For example, they cited the *Pathways to Recovery* (Ridgway & Bledsoe, 2002, cited in Fukui et al., 2010) and the *Strengths-Based Brief Solution-Focused Counselling* (cited in Mireau & Inch, 2009). Another example is the application of the *Strengths Model Case Management* (SMCM; Rapp & Goscha, 2012). In Fukui et al. (2012) study, case management teams were able to reach high SMCM fidelity, which meant that SMCM was being implemented (Table 2). Several studies compared

strengths approaches with Assertive Community Treatment (ACT), a well-defined model that includes a similarly high level of intensity to SMCM. Nevertheless, there was variability in the degree of detail provided regarding the interventions that were used. Direct measures of strengths were weak.

In one of the later studies, the engagement of peer supporters working with professionals in providing a strengths-based group programme highlighted an important new development (Green *et al.*, 2013). Peer supporters or peer support workers refer to individuals with lived experience of mental illness who are recruited, trained, and supported to use this experience to support other peers during recovery (Davidson, Bellamy, Guy, & Miller, 2012; Repper & Carter, 2011).

<Insert Table 2 Here>

Discussion

Study design and intervention effectiveness

The overall results of this critical review are comparable to the results of a recent meta-analysis of clinical trials of strengths-based practice (Ibrahim, Michail, & Callaghan, 2014). First, both the current critical review and recent meta-analysis considered that

only a small number of clinical studies met the requirement of a moderate level of quality (Barry et al., 2003; both of these trials were included in the present review and the meta-analysis; Björkman et al., 2002). There is a pressing need for further good quality, well-designed clinical trials to examine the effectiveness of strengths-based practices. Second, both of the reports have found that the effect of strengths-based interventions on service users' level of symptoms was either inconclusive (e.g., Björkman et al., 2002; Green et al., 2013) or less favourable in comparison to other service delivery models (Ibrahim et al., 2014). On the other hand, compared to the study by Ibrahim et al. (2014), the present review holds a more positive view of strengths-based approaches. For example, the present review found that the approach was associated with some favourable employment and educational outcomes, whereas the meta-analysis found no significant difference between the strengths-based approach and other service delivery models. This may be explained by differences in methodological approaches between the two reports.

A critical review is typically narrative by nature, and it aims to provide 'an opportunity to 'take stock' and evaluate what is of value from the previous body of work. It may also attempt to resolve competing schools of thought. As such, it may provide a 'launch pad' for a new phase of conceptual development and subsequent 'testing'' (Grant &

Booth, 2009, p.93). However, a meta-analysis uses 'techniques that statistically combine the results of quantitative studies to provide a more precise effect of the results' (Grant & Booth, 2009, p.94). The analysis by Ibrahim et al. (2014) included five studies between 1991 and 2003 and all the studies had control groups. The current review included seven studies between 2000 and 2013, and six of the studies had a control-group design.

Comprehensive application of a strengths-based approach

The current review found that there was improved but still limited operationalization of strengths-based practices. Below, we discuss each stage briefly: assessment, intervention, and monitoring.

It is possible to conduct a strengths assessment in mental health service delivery contexts and practice. A systematic review identified 12 published approaches to strengths assessment: five quantitative measures and seven qualitative methods (Bird et al., 2012). The Strengths Assessment Worksheet (SAW) is the most widely utilized and evaluated qualitative assessment method (Rapp & Goscha, 2006, 2012). The Client Assessment of Strengths, Interests and Goals (CASIG) has the strongest psychometric evidence (Lecomte, Wallace, Caron, Perreault, & Lecomte, 2004), and the SAW and

CASIG assessments have been tentatively recommended for use in practice. Other approaches to assessing strengths have also been published, such as use of the VIA-Strengths (Park, Peterson, & Seligman, 2006) approach in mental health services (Resnick & Rosenheck, 2006).

To provide strengths-based intervention and to amplify strengths is a person-centred process. Interpersonal styles such as coaching are helpful in facilitating a focus on strengths (Bora, 2012; Shepherd, Boardman, & Slade, 2008). The present review underlines the high level of engagement that is fostered by the strengths approach, the significance of the level/intensity of contact, the active and outreaching role of workers (including peer supporters) that arise from the approach. Blow et al. (2000) matched the intensive contact and practical outreach elements across ACT and SMCM and found positive outcomes. Assertiveness alone may not be well received. The service users also value the positive tone, warmth of engagement, and prize the optimistic tone of strengths-focused brief interventions (Mireau & Inch, 2009).

Finally, on the basis of our review, it appears that routine monitoring and reviewing of strengths is rarely implemented. This process involves the assessment of current and potential strengths, the activation and use of these strengths, and ambitious but not

unrealistic goal setting around the acquisition of new or amplified strengths. The most developed approach to integrating a focus on strengths into routine monitoring is the SMCM (Rapp & Goscha, 2012 cited in Fukui et al., 2012). Practice change has been achieved through staff training and the introduction of new strengths-based assessments, planning tools, and team discussions (Petrakis, Wilson, & Hamilton, 2013) based on Rapp and Goscha's (2012) tools and guidelines.

The role of peer support workers in strengths-based practice

Two studies have assessed the impact of *Pathways to Recovery* (Ridgway & Bledsoe, 2002) support groups on participants—one on peer-led groups (Fukui et al., 2010) and the other on groups co-led by a peer counsellor and a non-peer counsellor (Green et al., 2013). Both studies found considerable improvements across multiple domains including hope, self-efficacy, and social support. Further research is needed to understand how peer supporters can enhance the impact of strengths-based approaches.

Strengths-based approaches emphasize personal and environmental strengths, as well as recognition of the character-building impact of trauma and mental distress (Peterson, Park, & Seligman, 2006; Tse, Divis, & Li, 2010). Peer supporters may have a distinct advantage over non-peer workers when it comes to personifying and practising these

principles. For instance, peer supporters can act as powerful role models precisely because their job requires lived experience (Davidson et al., 2012), or they can amplify a client's hope that they too can utilise strengths to move beyond their distress (Sells, Davidson, Jewell, Falzer, & Rowe, 2006). Peer support is also embedded in recovery philosophy and shares similar origins with the consumer or survivor movement (for recent reviews on effectiveness of peer support services, see Chinman et al., 2014; Lloyd-Evans et al., 2014; Trachtenberg, Parsonage, Shepherd, & Boardman, 2013).

Applying strengths-based practices cross-culturally

All of the selected studies in this review were conducted in Western cultures, and beliefs with regards to one's mental health, expressions of emotions, and strengths are heavily influenced by culture (Leamy et al., 2011; Tse, Cheung, Kan, Ng, & Yau, 2012; Tse et al., 2010). The notion of 'strengths' in non-Western cultures is under-researched. The conceptualization of strengths—the forms of linguistics, metaphors, icons, or folklore traditions—is culturally specific. In Chinese, the word 'strengths' is commonly understood as 優勢 (*youshi* or superiority), 強項 (*qiangxiang* or forté), or 潛能 (*qianneng* or potential). Bamboo, an evergreen plant commonly seen across Asia that thrives even in harsh weather conditions, is often used as a metaphor for strengths and

uprightness. In Chinese, Japanese, and Vietnamese cultures, bamboo is viewed as a virtuous symbol of tenacity and perseverance.

It is imperative to understand how cultural variations should be taken into account in the interpretation of 'strengths'. For instance, people in Chinese communities (in some case including Korean and Japanese communities) are heavily influenced by Confucianism, Taoism, and Buddhism (M. H. Bond, 2010; Chen & Davey, 2008; Lu, 2001), which 'advocate spiritual cultivation and mind-work, such as self-retrospection and self-transcendence, they admonish people to eliminate excessive desires, live a simple life and restore a clear mind' (Lai, Cummins, & Lau, 2013, p.608). Chinese people under the influence of traditional culture may interpret 'empowerment' as a challenge to deep-rooted ideas of Confucianism that emphasizes self-sacrifice, harmony, benevolence, and forgiveness. Similarly, ~~in the Taoistic concept of mental health, the virtue of tolerance and endurance may be preferred to exercising 'self-determination.' U~~under Taoism, people tend to be more modest and they less readily name their strengths, successes, and talents (Tse et al., 2010). Therefore mental health practitioners need to be creative and culturally sensitive when helping service users in exploring and identifying the strengths and virtue of characters within themselves and the wider environment.

In the present authors' research and clinical work, we found it helpful to highlight specific domains and invite service users to identify what they consider as their sources of strength: personal (i.e., knowledge, academic qualifications, life experience, talents, problem-solving skills, live skills, interests, character, and attitude towards life), career/occupation, religious/spiritual sphere, family, colleagues at work, friends, neighbourhoods, social groups (formal or less formal), or the wider community.

Directions for policy, future research, and service provision

Strengths-based, recovery-oriented approaches are increasingly relevant to and welcomed by policy makers. An example is the Irish Mental Health Commission report 'A recovery approach within the Irish mental health services: A framework for development' (Higgins, 2008) as well as a report launched by the Commonwealth of Australia, 'A national framework for recovery-oriented mental health services: Policy and theory' (Australian Health Ministers' Advisory Council, 2013). Further research in non-Western settings is important, especially considering cultural differences regarding the definition and conceptualization of strengths as noted in this review. Also, there may be cultural differences within nation states, particularly regarding ethnic minorities, indigenous people, and immigrants. Another gap in research relates to the implementation of strengths-based approaches in routine mental health settings (G. R.

Bond, Drake, McHugo, Rapp, & Whitley, 2009; McHugo et al., 2007; Whitley, Gingerich, Lutz, & Mueser, 2009). Existing research provides little evidence-based guidelines on the best approaches to training staff in strengths-based approaches. This is critically important given that much clinical training continues to focus on deficits and symptoms, fostering a paternalistic attitude toward patients (O'Hagan, 2004; Slade, Adams, & O'Hagan, 2012; Whitley, 2014). Adopting a strengths-based approach may require a 180 degree turn away from embedded attitudes of 'clinician knows best.' Finally, to support an individual to maximise one's own strengths and work toward his/her own goals, there must be a transformation within the workplace, as well as a change in the system's culture (Shepherd, Boardman, & Burns, 2010; Tew et al., 2012).

To conclude, there is a need for more high quality studies to further examine the effectiveness of strengths-based approaches. This review has revealed emerging evidence that the utilisation of a strengths-based approach is effective for yielding desirable outcomes, including 'hard' outcomes such as duration of hospitalization, adherence to treatment, and employment/educational attainment, as well as 'soft' outcomes such as self-esteem, self-efficacy, and sense of hope. Strengths-based approaches emphasize the autonomy, assets, and goals of the individual client, and practitioners are considered facilitators of the recovery process. Successful

implementation of a high-fidelity strengths-based approach in clinical settings requires collaboration from service users, staff, administrators, and policy makers.

Conflict of interest

The authors declare that there is no conflict of interest.

Funding acknowledgement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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