Open Dialogue: A Review of the Evidence

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Objective: Emerging evidence for Open Dialogue (OD) has generated considerable interest. Evidence comes from a range of methodologies (case study, qualitative, and naturalistic designs), which have not been synthesized as a whole. The objective of this review was to synthesize this literature.

Methods: A systematic search of the databases PubMed, CINAHL, Scopus, Web of Science and PsycINFO included studies published until January 2018. A total of 1,777 articles were screened. By use of a textual narrative synthesis, studies were scrutinized for relevance and quality.

Results: Twenty-three studies were included in the review; they included mixed-methods, qualitative, and quantitative designs and case studies. Overall, quantitative studies lacked methodological rigor and presented a high risk of bias, which precludes any conclusions about the efficacy of OD among individuals with psychosis. Qualitative studies also presented a high risk of bias and were of poor quality.

Conclusions: Variation in models of OD, heterogeneity of outcome measures, and lack of consistency in implementation strategies mean that although initial findings have been interpreted as promising, no strong conclusions can be drawn about efficacy. Currently, the evidence in support of OD is of low quality, and randomized controlled trials are required to draw further conclusions. It is vital that an extensive evaluation of its efficacy takes place because OD has already been adopted by many acute and community mental health services.

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Open Dialogue (OD) is both a therapeutic intervention and a way of organizing services. Several countries have embraced the OD approach, with established sites in the United States and Europe. According to public information, there are currently OD initiatives in the United States; several countries across Europe, including the United Kingdom, Austria, Italy, Germany, Poland, Finland, Norway, and Denmark; and Australia. OD has a person- and network-centered approach to the treatment of mental illness and thus fits with the aspirations of many mental health services (1). However, as the OD model has been implemented across the globe, it has been adapted to fit the context of local health care services. Considering the recent focus on evidence-based practice (2) and the few empirical studies that have been conducted of OD-informed approaches, a review of the qualitative and quantitative evidence is timely.

BACKGROUND AND DEVELOPMENT OF OD

OD is an integrative approach that embodies systemic family therapy (3) and incorporates some psychodynamic principles. It embraces a network perspective, bringing together both social and professional networks, to provide continuity of psychological care across the boundaries of services. It encourages families to meet immediately and frequently after referral to openly explore acute mental health crises. The approach aspires to create a space where decision making is transparent and service users are able to find new words for their experiences. OD privileges community treatment over hospitalization.

OD was developed during the 1980s in Western Lapland, Finland. It is informed by social constructionism and is an approach to service design and culture as well as to clinical encounters. OD aims to address issues of power often associated with mental health care. It is recognized that people with mental health problems often feel powerless and that the structure and setting of mental health services inadvertently amplifies these feelings. OD sets out to directly address this, flattening the hierarchy by being democratic and encouraging transparency and autonomy. Early versions of OD were influenced by the need-adapted approach to treatment and later revised. This method emphasizes the exploration of the interactional history of a psychotic episode and collaboration of both a service user's social network and his or her professional network in the provision of care (4). Similarities to OD can be seen in family crisis therapy, which aims to shift the focus of acute care away from locating problems within individuals to an emphasis on a networkwide exploration of interactional aspects of the crisis (5).

Seven key elements in the OD approach were outlined in the fidelity criteria proposed by Olson and colleagues (6).

These can be understood as related to both the organization of services and a way of being with people. The service is required to be organized so that it facilitates immediate help, social network perspectives, flexibility and mobility, responsibility, and psychological continuity. A way of being with people includes the elements of tolerating uncertainty and dialogism. Dialogism is defined as a focus on creating dialogue, where a new understanding is constructed with the team, while promoting a sense of agency and change for the service user and his or her family (7).

ADAPTATION AND IMPLEMENTATION OF OD

The OD approach has been implemented across mental health services globally. An example of this is the Parachute NYC Project in the United States, where OD principles have been incorporated into a pilot state-funded psychiatric service. Some services have set up new teams with the aim of delivering services that meet the seven principles of the fidelity criteria (6,7), and others have taken elements of the approach and integrated OD into current practices. The diversity in the application of OD may be indicative of the complexity of implementing both individual-level changes and broad service-level changes. A review of the emergence of OD in Scandinavia (excluding studies from the original OD project in Finland) highlighted the variety of ways in which the approach has been implemented. The review suggested that the variety of implementation strategies may be the result of limited standardized and prescriptive descriptions of OD methods and the selective implementation of elements of the approach according to the priorities of those delivering services (8). Of the 33 included studies, most were small scale, qualitative, and cross-sectional and published in the gray literature. The review concluded that overall OD was welcomed by service users, their networks, and staff. However, there was also evidence of resistance from practitioners as well as evidence that some families found the format of the approach challenging and confusing.

The diversity in the application of OD adds complexity to reviewing the state of the evidence. To date, there is a dearth of good-quality empirical publications evaluating OD (9–12). However, several initiatives are under way to evaluate OD-informed interventions. A forthcoming randomized clinical trial (RCT), ODDESSI (Open Dialogue: Development and Evaluation of a Social Network Intervention for Severe Mental Illness), is anticipated to start in the United Kingdom. Previous literature reviews have focused only on either quantitative evidence (1,13) or qualitative data regarding the implementation of the approach (8). It is important to consider the quantitative literature in the context of the qualitative findings to provide a more representative overview of the impact of OD. The heterogeneity in the OD literature means that this review of studies that used a variety of methods was required to broaden the lens and synthesize qualitative, quantitative, and nonexperimental forms of evidence (14). This review also builds on previous work by including additional quantitative studies that have not previously been reviewed (15–17).

METHODS

This review aimed to answer the overarching question, "What is the current state of the evidence for OD?" in relation to outcomes and implementation of OD. The search was completed in January 2018. Unpublished studies and studies in languages other than English were excluded (18). Also excluded were studies that did not self-identify OD as the intervention offered, which excluded results from the need-adapted treatments reported in the Turku and Parachute Projects (19–22). Two authors independently identified published articles by using the search term "Open Dialogue" in the title, keywords, or abstract in the databases, PubMed, CINAHL, Scopus, Web of Science, and PsycINFO (hosted by Ovid).

The titles and abstracts of 1,777 articles were searched by the first author, and 96 articles were included for a full-text search and screened for inclusion by two of the authors (AMF and RHT). In total, 23 studies were included in the review. [A flow diagram illustrating the study selection process is included in an online supplement to this review.] Inclusion criteria stipulated that studies must assess OD's effectiveness or impact by using a case study, qualitative, quantitative, or mixed-methods design. An inclusive approach was taken to provide an overview of the state of the evidence for OD. This review aimed to include both qualitative and quantitative studies of a wide range of quality to gain greater insight into how the approach is delivered and experienced and to avoid exclusion of relevant studies because of the limited research to date.

The methods for a textual narrative synthesis (23) were used, rather than a systematic review, because of the very low quality of evidence in the OD literature. In addition, the mixed designs employed in studies evaluating OD are not amenable to risk-of-bias tools (for example, Cochrane), which have primarily been designed to assess RCTs. Quality appraisal was used at the data synthesis stage. The data extracted included study characteristics, context, findings, and conclusions. The heterogeneity of the studies meant that a single quality measure could not be used; therefore, key principles in quality assessment of qualitative studies as outlined by Pope and colleagues (24) and reporting of quantitative studies by the STROBE initiative (25) were taken into account. For example, qualitative studies were assessed for description of methods, including analysis, triangulation, and respondent validation, and quantitative studies were assessed for inclusion and exclusion criteria, dropouts, data analysis, blinding, and quality of reporting.

RESULTS

This review included 23 published studies; eight reported on quantitative data (7,15–17,26–29), and 16 analyzed qualitative

data (15,27,30–43). OD principles have been implemented in several regions internationally; here we report on data from sites in Finland, Norway, the United States, and Sweden. [Because of the complexity and importance in the etiology of OD, a detailed summary of the results and incidence rates reported in the publications from the original OD project in Western Lapland (7,17,26–29) is provided in the online supplement.]

Overall, qualitative and quantitative studies investigating the impact and implementation of OD have used an extremely wide range of designs and outcome measures. Most studies have not been consistent in their reporting of methodology, which has resulted in a high risk of bias resulting from lack of transparency (24,25). Conclusions about the effectiveness of OD are hard to draw with any certainty. The literature is hindered by the low number of studies and, in general, a lack of methodological quality, which is best typified in the quantitative studies by small samples, variation of outcome measures, a lack of randomization, and an inadequate comparison or control group. Most studies were conducted by or included the main investigator and OD project developer, potentially leading to bias arising from "researcher allegiance," a phenomenon in which investigators tend to find positive results for the treatment that they favor (44). Blinding was also lacking; raters of the outcome measures and diagnoses were often aware of the treatment under investigation.

Treatment Outcomes for OD

Much of the quantitative data were collected by the same research group in a single, small geographic region of Finland between 11 and 25 years ago. These original studies and subsequent follow-up studies had sample sizes that changed from study to study, although the same sample was used, and publications did not consistently report where data had been included or excluded, raising the risk of bias. The conclusions drawn seem overly positive considering the type of study designs used. For example, authors concluded that OD "had been helpful—if not in actually preventing schizophrenia, at least in moving the commencement of treatment in a less chronic direction" (26). The remaining two quantitative studies of OD were not controlled—the first included 16 participants (15), and the second narrowed outcome measures to suicidal ideation (16).

Outcome studies from the original OD project in Western Lapland. In Finland, the original OD project based in Western Lapland was part of a trial called the Finnish National Acute Psychosis Integrated Treatment multicenter project (API project) and later the Open Dialogue in Acute Psychosis (ODAP) project. Publications from original OD sites (7,17,26–29) were defined by the authors as descriptive studies [see a table of results in the online supplement]. These publications included outcome data from a historical sample consisting of service users treated as part of the API project, which took place between April 1, 1992, and January 31, 1993. The purpose of the API project was to investigate medication use within a comprehensive package of care. The Western Lapland region where OD was developed was allocated to conduct a trial of a change to antipsychotic medication treatment for first-episode psychosis. Treatment during this period was described as employing some of the principles of OD, but the approach was not used routinely in practice (7). The two-year outcomes from the API project have also been published (19,20). The system of OD treatment had been implemented during the API period; however, it was not until the ODAP project was launched in 1994 that the content of the psychotherapy was "transformed," although the authors did not elaborate further on the details of this transformation (7).

There were two samples from this project: ODAP1 included service users who entered treatment from January 1, 1994, to March 31, 1997, and ODAP2 included service users from February 1, 2003, to December 31, 2005. There was substantial variation in the severity of the presentations included in each cohort, which was not adequately accounted for in the interpretation of the findings. In addition, Seikkula and colleagues (28) noted that although there were no categorical differences between the treatment approaches across the two treatment periods (API versus ODAP), treatment changes made in the API phase were taken forward in the ODAP phase in a more systematic way. Earlier studies reported that rating of therapist adherence was conducted, yet no detailed information was provided about the extent to which the OD intervention delivered for each cohort met adherence or fidelity criteria (6).

Outcome studies outside Western Lapland. A Finnish site, as reported by Granö and colleagues (16), provided OD-informed treatment for adolescents, and the data reported were quantitative. In the United States, Gordon and colleagues (15) reported initial quantitative outcomes from a feasibility study of a program called the Collaborative Pathway, an OD-informed mobile crisis and outpatient team. These studies reported outcomes for symptom reduction, use of antipsychotic medication, hospitalization, and incidence rates. To date, no RCTs have been conducted to evaluate the effectiveness of OD compared with alternative treatments. Most studies have involved nonexperimental designs, and only one (7) has included a control group (N=14). There are several methodological issues with these studies, including small and diagnostically heterogeneous samples, unblinded assessment of outcomes, and retrospective diagnosis. Therefore, empirical support for OD is limited. [Further details about the results and methodological limitations of these studies are provided in the online supplement.]

Qualitative Studies of the Delivery of OD

Although important themes from the naturalistic or qualitative study data will be useful to clinicians using or planning to implement OD, there are several issues with the quality of

the evidence. Qualitative data were drawn from a very small number of participants, with a high risk of sample bias. Sampling and recruitment bias were not explicitly addressed in most qualitative studies included in this review, and thus it is not clear whether sampling adequately targeted those with both positive and critical views of the intervention. Several case studies also suffered from a lack of transparency when reporting on the choice of analysis. A dearth of methodological information reported in many of the qualitative studies included in this review make it difficult to evaluate the credibility of data or potential bias. Most qualitative studies examined included attributable quotes, which increases the credibility of the research; however, few studies reported sampling procedures or participation rates, which increases the risk of bias. Case reports (7,26,28,30–32) constituted single cases, and there appears to be a lack of good-quality multiple case study designs.

Rosen and Stoklosa (42) used qualitative data to evaluate a pilot study at the McLean Hospital where OD-informed practice was adapted for use during inpatient ward rounds on the Schizophrenia and Bipolar Disorders Unit. In Norway, a series of qualitative studies reported on the Dialogical Collaboration in Southern Norway project, an implementation of OD-informed practice in adolescent services (33–37). The focus in these Norway-based publications seems to be placed on the experience of network meetings and the meaning of dialogue. This raises questions about the extent to which service-level practices of OD, which are central to the model, were implemented in these studies. Another Norway-based project called Project Joint Development Norway reported on a procedural intervention based on the principles of OD; the study examined both individual- and service-level changes (40,41). Qualitative data were also reported from a project called the Health South Region Norway, a Crisis Resolution and Home Treatment service inspired by OD principles (43). Data were also reported from evaluations of an OD-inspired service in Sweden, which included network meetings and a service model that followed the principles of need-adapted treatment (38,39).

Implementation of OD Principles

This review found large variation in whether authors reported how OD was implemented (Tables 1 and 2). Each new implementation site appears to have slightly altered or adapted the OD approach to account for regional differences in mental health services. There was a dearth of information outlining how OD principles were related to services organization. This reduced the utility of the research for other services wishing to implement the approach. Very few used or mentioned the seven key principles of OD that form the fidelity criteria established by Olson and colleagues (6). Because each site may have been delivering an adapted and therefore different approach to OD practice, it is difficult to compare studies across sites. Some qualitative studies reflected this difficulty, noting the challenges of implementing change at an organizational level, and others focused only on the service users' experience of network meetings.

The developers of OD have published a number of case reports and some qualitative data to demonstrate these principles as a proposed mechanism of change for the approach, and it is assumed that the original OD project in Western Lapland adhered to the model closely (7,26–29). In some reports, case studies are presented alongside quantitative data to illustrate the application of OD principles at the individual and service levels and to evaluate the impact of OD from a service user's perspective. This type of exploration is important considering the complexities of an intervention that includes both a way of being with service users and a way of organizing services.

Two case studies illustrate the key elements of OD practice (32). The second case study and its commentary by Seikkula (32) are a verbatim shortened extract from Seikkula and colleagues' (31) article, which presents a longer case illustration, under a different pseudonym and gender, of the key principles of OD. The authors concluded that these case studies demonstrated that shared emotional experience between participants is central to OD and that the approach can be used in a variety of settings. Other than data from the original OD project in Western Lapland, information on adherence and fidelity is lacking. Gordon and colleagues (15) commented that training costs and clinician time were substantial and that the relationship between costs covered by insurance and implementing the OD principles was extremely complex.

Two studies reported on a series of qualitative interviews with professionals involved in an OD-inspired service and conducted over several years during the implementation period (40,41). Issues arose in which OD challenged traditional working roles and professional hierarchies. Openness and authenticity were noted as important to the dialogical process. These two studies were of good quality and accounted for possible sampling biases, reporting systematic procedures for each stage of the data collection phase and analysis. More research is urgently needed on experiences of and barriers to implementation, as well as clear reporting on adherence to the model.

Key Principles and Their Application in Network Meetings

This review highlights that in some circumstances the implementation of OD in services has focused on network meetings, with less emphasis on service-level changes. This mirrors a tendency within psychological therapies to focus on individual practices as opposed to broader systems. A series of qualitative transcripts of therapeutic meetings with 20 service users showed that "good" outcomes were related to meetings that were more "dialogical," in which dialogue was dominated by the service user and his or her network, as well as the use of symbolism (30). For illustration, two cases are presented in which poor outcomes were associated with limited responses from clinicians in meetings. Results were

TABLE 1. Summary of quantitative results of studies of Open Dialogue (OD)

Study	Location	Design	N	Control group	Follow-up	Outcome measures[a]	Fidelity to OD principles[b]	Findings[c]	Reported limitations
Gordon et al., 2016 (15)	USA	Feasibility study, mixed-methods design (case series and qualitative)	16	None	Baseline, 3 and 6 months, 1 year	BPRS, BASIS-R, SCLFS, DSES, SDMQ, CSQ, Autonomy Preference Index, work or school hours, hospital days	No formal rating of fidelity reported. Did not provide inpatient care but remained engaged with participants during hospitalizations	Significant improvements on the BPRS, BASIS-R, and SCLFS and in average work or school hours and hospital days. The change in DSES score approached significance, and 9 of 14 participants were working or in school at 1 year.	Small sample, diagnostic heterogeneity, lack of a control group, missing data, unblinded clinical ratings
Granö et al., 2016 (16)	Southern Finland	Case series	130	None	Baseline, 1 month	Item 9 of the Finnish version of the BDI-II	No formal rating of fidelity reported; reported to have included parts of family therapy and OD	A significant reduction in rates of suicidal ideation was found in about 50% of the sample, with an average treatment length of about 9 months.	History of suicide attempts not controlled for, no control group
Bergström et al., 2017 (17)	Western Lapland, Finland	Retrospective cohort study	116	None	Baseline, 1 year	Baseline diagnosis, GAF, anti-psychotic medication use, hospitalization days	Principles outlined and discussed; fidelity not formally rated but authors concluded that principles were generally followed.	Most service users were treated with only one hospital admission or with no hospital treatment (54%), and 95% spent <1 year as an inpatient over the entire period. Aggression at initial contact was associated with higher rates of hospital admissions.	Comorbidity of diagnoses and types and antipsychotic medication were not controlled for, possibly not all psychotic episodes were recorded, small sample size, attrition
Aaltonen et al., 2011 (26)	Western Lapland, Finland	Historical control design	111	Historical sample	NA	Incidence rates of new hospital patients, mean annual incidences of nonaffective psychosis and prodromal states	Principles outlined and discussed; adherence and fidelity not reported	The historical analysis (clients were diagnosed on the basis of treatment notes) found that the number of new long-stay hospital patients with schizophrenia fell to 0 in 1992, less than the mean in Finland, which was 3.5 per 100,000 inhabitants. No new long-stay hospital patients with schizophrenia emerged prior to publication.	Changes in diagnostic habits, diagnosing retrospectively

continued

TABLE 1, *continued*

Study	Location	Design	N	Control group	Follow-up	Outcome measures[a]	Fidelity to OD principles[b]	Findings[c]	Reported limitations
Seikkula et al., 2003 (7)	Western Lapland, Finland	Cohort study	54	Treatment as usual	Baseline, 2 years	Antipsychotic medication use, hospitalization days, relapses, residual symptoms at baseline and 2 years, GAF, employment status, BPRS at follow-up	Outlined and discussed principles; adherence and fidelity not reported	Two experimental groups (ODAP1 and API) corresponding to the slightly different OD treatment received. At least one relapse occurred for 24%–31% of the experimental groups and for 71% of the comparison group. ODAP1 patients had fewer residual psychotic symptoms, compared with the control group. In the control group, 30% of patients were studying, working, or job seeking, compared with 83% of the ODAP1 group.	Small sample size, control group sample chosen over 21 months, developers of the approach involved in ratings of symptoms and diagnosis
Seikkula, et al., 2006 (27)	Western Lapland, Finland	Case series or historical comparison study	75	None	Baseline, 2 and 5 years	Ongoing antipsychotic medication use, hospital days, number of relapse cases, residual symptoms at baseline and 2 years, employment status, BPRS at follow-up	Therapist adherence and fidelity to 7 principles rated on a 0–3 scale; data reported only for 2 case studies but not the rest of the sample	At the 5-year follow-up, 82% of ODAP1 and 76% of the API group had no residual psychotic symptoms, 70% of the API and 76% of the ODAP1 group had returned to work or studies, and 27% of API group and 14% of ODAP1 group were living on a disability allowance.	Small sample size, developers of the approach were involved in ratings of symptoms and diagnosis
Seikkula et al., 2001 (28)	Western Lapland, Finland	Case series	78	None	2 years	Antipsychotic medication started, hospitalization days, BPRS, GAF, occupation, disability allowance	Therapist adherence and fidelity to 7 principles rated on a 0–3 scale; data reported only for 2 case studies but not for the rest of the sample	Results categorized into a poor and a good outcome group on the basis of residual psychotic symptom level and employment status; 78% of patients were assessed as having a good outcome. The poor outcome group consisted of patients whose source of living was a disability allowance or with residual moderate or more severe psychotic symptoms. The good outcome group consisted of patients who were working, studying, or job seeking, with no more than mild residual psychotic symptoms.	None reported

continued

TABLE 1. *continued*

Study	Location	Design	N	Control group	Follow-up	Outcome measures[a]	Fidelity to OD principles[b]	Findings[c]	Reported limitations
Seikkula, et al., 2011 (29)	Western Lapland, Finland	Case series, historical comparison study	93	None	Baseline, 2 and 5 years	Antipsychotic medication use, hospital days, number of relapse cases, residual symptoms baseline and 2 years, GAF, employment status, BPRS follow-up	Principles outlined and discussed; adherence and fidelity not reported	ODAP2 patients were found to be younger than API and ODAP2 patients and also less likely to have a diagnosis of schizophrenia; authors attributed this finding to the effectiveness of the OD practitioner's making early contact with patients in crisis and to OD's being related to "profound changes in the incidence of severe mental health problems."	Small province, potential changes in local culture could not be standardized, authors were involved in ratings of symptoms and diagnosis

[a] Autonomy Preference Index; BASIS-R, Revised Behavior and Symptom Identification Scale; BDI-II, Beck Depression Inventory-II; BPRS, Brief Psychiatric Rating Scale; CSQ, Client Satisfaction Questionnaire; DSES, Decision Self-Efficacy Scale; GAF, Global Assessment of Function Scale; SCLFS, Strauss-Carpenter Level of Function Scale; SDMQ, Shared Decision-Making Questionnaire

[b] As laid out by Olson and colleagues (6)

[c] API, Finnish National Acute Psychosis Integrated Treatment multicenter project; ODAP, Open Dialogue in Acute Psychosis project; ODAP1 included service users who entered treatment from January 1, 1994, to March 31, 1997, and ODAP2 included service users from February 1, 2003, to December 31, 2005.

hampered by a lack of recognized qualitative analysis, which was common throughout the qualitative studies reviewed. A participatory action research study identified themes from a focus group with six service users (43). Results suggested that the participants valued and learned from the uncertainty that emerged in meetings by drawing on previous clinical experiences and remaining open minded.

A series of Norway-based studies reported results from a multiperspective project consisting of 28 qualitative interviews that attempted to elucidate mechanisms of change by focusing on interpreting service users' experiences of change through the lens of several theoretical influences of OD (33–37). Attention to the ethical and expression dimension of dialogue and to meaning within meetings was found to be an important part of the change process (35). Two studies used a dialogical phenomenological approach to evaluate inner and outer dialogues of OD practice, highlighting the importance of inner dialogues in the development of significant moments of meaning during meetings (36,37). Overall, the collection of studies reported that the impact of OD was positive and that reflecting and an ethical space were important to the positive impact. A strength of this series of studies is that they included experts by experience as coresearchers. Each study provided in-depth and reflexive analysis of the data from multiple perspectives, but there was a lack of clarity regarding how OD was implemented.

Overall, this review found that more qualitative research is needed to gain a better understanding of how service users and staff experience network meetings, as well as any similarities and differences between them. This research should use standardized qualitative analysis, apply rigorous evaluation tools, and include more participants.

Service User Acceptability and Increasing Trust in Services

Service user acceptability is an important outcome when viewed though the OD lens. Most of the qualitative studies reviewed suggested that OD is acceptable to service users (Table 2). Qualitative interviews showed that participants, their networks, and clinicians indicated that families appreciated the openness and transparency of network meetings and felt that reflections promoted a collaborative atmosphere (15). Participants experienced self-understanding and enhanced shared decision making. Rosen and Stoklosa (42) found that service users' trust in the care they received increased overall and suggested that observing the reflecting team fostered trust in the team. However, few conclusions can be drawn about the quality of the findings presented in these studies (15,42), because they reported little information regarding the data collection and analysis procedures, indicating a possible risk of bias. The authors of the Sweden-based study also discussed trust in their qualitative analysis and found that

TABLE 2. Summary of case studies and qualitative studies of Open Dialogue (OD), by site location

Study	Project and location[a]	Setting	Design	N	Analysis	Aims[b]	Triangulation	Fidelity to OD principles[c]	Key findings
Gordon et al., 2016 (15)	Collaborative Pathway; USA	Mobile crisis and outpatient service	Mixed-methods study, including qualitative interviews	13 (6 service users and network members, 7 clinicians)	Not stated	To explore clinician and service user experiences of OD-informed working	Not stated	Reference to the use of OD principles as an approach; fidelity not reported; OD team did not deliver inpatient care	Service users reported positive experience of openness and transparency, lack of time restraints, and reduced focus on medication. Community care also positive. Clinicians reported positive experiences of delivering approach.
Seikkula et al., 2006 (27)	API, ODAP; Western Lapland, Finland	Adult mental health service offering OD	Case studies	2 service users	None stated	To demonstrate a good outcome and poor outcome as defined by the authors; comparison of a single case from the API and ODAP1 groups	Not stated	Detailed description of OD principles; case studies illustrate principles and possible differences between treatment periods; no formal rating of fidelity	Case illustrations provide participants experiences of OD. Home visits were a positive aspect of the approach. In-depth discussion of problems is emotionally challenging.
Seikkula, 2002 (30)	API, ODAP1; Western Lapland, Finland	Adult mental health service offering OD	2 case studies	20 service users (10 "good" outcome, 10 "poor" outcome)	Sequence analysis	To deepen analysis of dialogue occurring in treatment meetings; analysis of cases paired for good and poor outcome	Not stated	Detailed description of OD principles; case studies illustrate principles; no formal rating of fidelity	Good outcome related to service user and network dominating the interaction, presence of symbolism in dialogue, and more "dialogical." Poor outcome related to lack of clinician response to service users.
Seikkula et al., 2001 (31)	API; Western Lapland, Finland	Adult mental health service offering OD	Case study	1 service user	None stated	To illustrate the process and key principles of OD	Not stated	Detailed description of OD principles; case study illustrates principles; no formal rating of fidelity	Authors present a transcript of dialogue from network meetings with a service user, which was also reported in Seikkula (32), describing a positive outcome. A description of how the case illustrates key principles of OD

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TABLE 2, *continued*

Study	Project and location[a]	Setting	Design	N	Analysis	Aims[b]	Triangulation	Fidelity to OD principles[c]	Key findings
Seikkula, 2003 (32)	API; Western Lapland, Finland	Adult mental health service offering OD	Case studies	2 service users	None stated	To illustrate the process and key principles of OD	Not stated	Detailed description of OD principles; case studies illustrate principles; no formal rating of fidelity	Shared emotional experience between participants is central to the approach. OD can be used in a variety of settings. One case is a verbatim shortened extract from Seikkula et al. (31).
Bøe et al., 2013 (33)	Dialogical collaboration; southern Norway	Network-oriented mental health service for adolescents	Single case study	2 service users and network member	None stated	Illustration of the process of change in dialogical practice	Coresearchers experts by experience	Reference to the use of OD principles as an approach; fidelity not reported	In-depth analysis of a single case study; exploration of the theoretical unpinning of change in OD. Change has its dynamics in dialogue as an ethical event. Positive experience of OD
Bøe et al., 2014 (34)	Dialogical collaboration; southern Norway	Network-oriented mental health service for adolescents	Multistage qualitative interviews	22 (8 service users, 8 network members, 6 clinicians)	Dialogical hermeneutical analysis	To explore the social dynamics of change related to people in psychosocial crisis from the perspective of lived experience	Coresearchers experts by experience	Reference to the use of OD principles as an approach; fidelity not reported	Change is the event of becoming through movement in ethical time and space.
Bøe et al., 2015 (35)	Dialogical collaboration; southern Norway	Network-oriented mental health service for adolescents	Video-recorded qualitative interviews	22 (8 service users, 8 network members, 6 clinicians)	Dialogical hermeneutical analysis	To explore change from the perspective of lived experience and its relationship to network meetings within dialogical practices in mental health	Not stated	Reference to the use of OD principles as an approach to service delivery; fidelity not reported	Change is related to reflections on the present but also past and future experiences. The attentive nature of clinicians was found to be particularly important in opening up the dialogue to facilitate change.

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TABLE 2, *continued*

Study	Project and location[a]	Setting	Design	N	Analysis	Aims[b]	Triangulation	Fidelity to OD principles[c]	Key findings
Lidbom et al., 2014 (36)	Dialogical collaboration; southern Norway	Network-oriented mental health service for adolescents	Single case study selected from a larger sample	4 (1 service user, 1 network member, and 2 clinicians)	Dialogical hermeneutical analysis	To explore the interplay between inner and outer dialogues and the development of meaning moments in therapy	Not stated	Reference to the use of OD principles as an approach used in network meetings; fidelity not reported	In-depth analysis of the theoretical unpinning of the approach. The interplay between inner and outer dialogues of service users and clinicians has a role in the creation of significant and meaningful moments in therapy.
Lidbom et al., 2015 (37)	Dialogical collaboration; southern Norway	Network-oriented mental health service for adolescents	Multi-perspective methodology	6 service users, network members, and clinicians	Dialogical phenomenological approach	Interpretation of interplay of inner dialogue and the dynamics of outer dialogues	Not stated	Reference to the use of OD principles as an approach used in network meetings; fidelity not reported	Inner dialogues included reflections on time and position and were essential in the development of significant moments during therapeutic meetings.
Piippo and Aaltonen, 2008 (38)	Integrated network and family–oriented model; Sweden	Adult mental health service	Qualitative semi-structured interviews	22 service users	Qualitative thematic analysis	To explore trust-mistrust and honesty concepts in previous experiences of traditional care and the new model of care	Not stated	Reference to OD network meetings and need-adapted approach models; no clear indication of fidelity to OD principles	Trust was related to a reciprocal process involving honesty and openness. Experiences of mistrust arose when professionals were perceived to dominate sessions and service users felt excluded from sessions or experienced reduced autonomy.
Piippo and Aaltonen, 2004 (39)	Integrated network and family–oriented model; Sweden	Adult mental health service	Qualitative semi-structured interviews	22 service users	Qualitative thematic analysis	To discover how service users experience integrated and family network model and outline the approach	Not stated	Reference to OD network meetings and need-adapted approach models; no clear indication of fidelity to OD principles	Approach offers multiple perspectives, service users able to open up, important people included in the process. Unclear if helpful for relatives or whether approach can be integrated to the wider system. Negative perception of professionals overwhelming enthusiasm for the approach; abstract nature of discussions

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TABLE 2, *continued*

Study	Project and location[a]	Setting	Design	N	Analysis	Aims[b]	Triangulation	Fidelity to OD principles[c]	Key findings
Holmesland et al., 2010 (41)	Project joint development; Norway	Adult drug abuse and psychiatry department within a medical hospital	Qualitative interviews of 2 focus groups	12 clinicians	Content analysis	To explore staff experiences of their professional role and teamwork in an OD context	Key themes reflected back during interviews to provide credibility checks	Reference to the use of OD principles as an approach; fidelity not reported	In regard to professional role, some reconsolidated their roles, and others found this aspect of the work challenging, reverting to traditional professional roles. Health care professionals and social educational groups had different experiences of team work; social educational groups did not feel accepted. Issues of power and hierarchy
Holmesland et al., 2014 (40)	Project joint development; Norway	Adult drug abuse and psychiatry department within a medical hospital	Qualitative interviews of 2 focus groups	12 clinicians	Content analysis	To explore staff experiences of what impedes or promotes dialogue in interagency working and how this relates to professional context	Key themes reflected back during interviews to provide credibility checks	Reference to the use of OD principles as an approach; fidelity not reported	Professionals reported that promotion of dialogue is related to specific factors of listening and attending to others in meetings and being able to be open and authentic, particularly when sharing perspectives and emotion. The diversity of the sample may be related to outcomes of the study.
Rosen and Stoklosa, 2016 (42)	McLean Hospital; USA	Adult mental health inpatient service	Mixed-methods study	50 (30 service users, 20 clinicians)	Questionnaires and qualitative analysis (method not stated)	To explore staff and service user perspectives of OD-informed working in an inpatient setting	Not stated	OD-informed practice adapted for use during ward rounds; reference to the use of OD principles as an approach; fidelity not reported	Service users reported improved trust in care provided. Clinicians reported improvements in efficiency and reduced follow-up. Clinicians reported positive outcomes, increased voluntary admission over involuntary admission, reduced use of restraint, and increased acceptance of medication and treatment plan changes.

continued

TABLE 2. *continued*

Study	Project and location[a]	Setting	Design	N	Analysis	Aims[b]	Triangulation	Fidelity to OD principles[c]	Key findings
Ness et al., 2014 (43)	Health South Region; Norway	Crisis resolution and home treatment team	Multistage focus group interviews	25 (6 service users, 7 family members, 12 clinicians)	Qualitative thematic analysis	To develop knowledge of new forms of community-based practice for people experiencing mental health crisis	Summarized notes from the first focus group were discussed with service users at second focus group.	OD principles reported at individual level; not clear whether OD practiced at service level; OD used in the research process	Two major themes were reported: learning to tolerate uncertainty by remaining open minded and valuing uncertainty by accepting opposing interpretations as viable ones. Valuing and tolerating uncertainty lead to mutually acceptable solutions.

[a] API, Finnish National Acute Psychosis Integrated Treatment multicenter project; ODAP, Open Dialogue in Acute Psychosis project; ODAP1 included service users who entered treatment from January 1, 1994, to March 31, 1997, and ODAP2 included service users from February 1, 2003, to December 31, 2005.
[b] Verbatim to the extent possible
[c] As laid out by Olson and colleagues (6)

experiences of mistrust arose when professionals were perceived to dominate sessions (38).

DISCUSSION

This review synthesized the quantitative and qualitative data from 23 studies and looked specifically at the outcomes of symptom reduction, use of antipsychotic medication, hospitalization, implementation of OD principles, application of principles in network meetings, and service user acceptability and trust. Study numbers were low in both the qualitative and the quantitative OD literatures. Although the developers of OD suggested that the approach may provide benefits for service users in regard to a wide variety of outcomes, these conclusions were not supported by the data because of low methodological rigor and high risk of bias. Several qualitative studies attempted to elucidate the application of key OD principles and how their application is related to service users' experience of outcomes; six of 16 were single-case designs and were hampered by unstandardized analyses. When the qualitative data across regions is considered, it seems that the concepts of authenticity and trust were important, as were the openness of the clinicians and service users. However, we argue that no strong conclusions (based on high-quality evidence) about the efficacy of OD can be drawn from the current available evidence and that the results should be viewed as hypothesis generating for future research with more robust methods.

Although much of the research has been qualitative and focused on application of OD key principles and on aspects of OD that may help, it is perhaps important to refocus on efficacy research, because it is hard to elucidate mechanisms of change for a treatment that is yet to have demonstrated efficacy. It is also essential to underline the importance of investigating interventions in naturalistic settings, because patient populations in RCTs are often less representative than those in typical clinical practice. In future robust RCTs, it is crucial to evaluate OD against a control group to determine whether it is superior to current practices.

Since the 1980s, several community-based initiatives have been implemented worldwide to provide early and timely interventions for psychosis (45). For example, Early Intervention Services (EIS) provide a comprehensive package of care for psychosis under a single team, including case management, psychotherapy, employment and education support, and support for families. A meta-analysis of ten RCTs showed that EIS for early-phase psychosis were superior to treatment as usual on a wide range of outcomes, including reduced hospitalization days and symptom reduction (46). The analysis included studies from a range of international regions, including two U.S.-based programs—the RAISE (Recovery After an Initial Schizophrenia Episode) Early Treatment Program and STEP (Specialized Early Treatment in Psychosis) RCT.

These programs share several service-level features with the OD approach, providing a comprehensive package of care and support for families. Most EIS programs included in this analysis offered cognitive-behavioral–based approaches to individual therapy, in contrast to OD, in which systemic, dialogical, and psychodynamic principles are embedded in all components of the service (46) and inform the primary approach to the psychotherapy delivered. Therefore, it will be important for prospective studies to assess how OD can offer benefits additional to those offered by EIS for this population. One study that is currently recruiting in the United States, OnTrackNY, looks to evaluate whether optional OD-inspired social network meetings improve the effectiveness of an existing coordinated specialty care service for first-episode psychosis (www.clinicaltrials.gov).

This review highlights the variation in implementation and evaluation of OD initiatives. Few studies clearly reported information about adherence to fidelity criteria, which further limits interpretation of empirical findings. It is not clear whether different OD approaches are comparable. For interventions to be appealing to commissioners and other policy makers, implementation issues need to be addressed. It is imperative that future developments report fidelity to the OD approach to clearly document the intervention delivered and address replication concerns. The OD approach will be assessed on its ability to be sustainable, scalable, and measurable, as well as its ability to enhance well-being and social connections. Researchers should hold this in mind by focusing on defining and outlining clear guidance on the implementation of OD, which includes fidelity criteria and guidance on implementation strategies and evaluation in the context of complex service-related changes.

CONCLUSIONS

This review highlights the lack of high-quality evidence supporting the efficacy of the OD approach and the urgent need for good-quality research trials and service evaluation. The qualitative research on OD seems to have emphasized that themes of authenticity and trust are relevant to the approach; however, most studies were highly biased and of low quality. Further studies are needed in a real-world setting to explore how and why OD works. Even though acceptability is a key part of implementation research, it is not sufficient to estimate the effectiveness of an intervention. To address scalability, future research must determine how OD can be "grown" so that it can be delivered on a wider scale by services other than those in Scandinavia while retaining effectiveness. One important issue is whether rigorous cost-effectiveness studies will show that the cost of service redesign, including intensive and costly training required in the OD approach, produces outcomes that offer value for money. It is important to note that very little evaluative research has focused on OD as a way of organizing services—that is, whether the service-level and structural changes of the OD approach are in place and effective. This may require the development of new measures and tools.

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