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Dual diagnosis competencies: A systematic review of staff training literature☆,☆☆

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ABSTRACT

Objective: To conduct a systematic review of the literature regarding approaches to staff training in dual diagnosis competencies.

Methods: A search was conducted using eight databases: Informit, Taylor & Francis, Springer, Proquest, Expand, Sage, Psych info, Elsevier and Cinahl. The year range was 2005 to April 2015. An additional manual search of reference lists was conducted to ensure relevant articles were not overlooked.

Results: Of 129 potential results, there were only 11 articles regarding staff training in dual diagnosis. The limited studies included problems: small sample sizes, selection biases, and questions as to validity of some capability instruments, and low inclusion of service user perspectives. Organisational challenges to greater uptake of staff training including agency size, agency willingness to change, and a need to change policies.

Conclusions: There is a pressing need for more research, and quality research, in this important area of knowledge translation, dissemination and implementation of evidence-based practices. In particular there is limited literature regarding the efficacy of dual diagnosis competency resources, and a gap as to use of the mentoring in dual diagnosis capacity building.

1. Introduction

It is estimated that anywhere between 40 and 80% of service users who experience mental illness in Victoria, Australia also have issues with substance use. People who suffer from mental health disorders that are complicated by alcohol and or other drug use disorders are defined as having a dual diagnosis (Department of Human Services, 2010).

Living with a dual diagnosis can cause complex physical, psychological and social difficulties for a wide range of people (Roberts & Jones, 2012, p.664). Dual diagnosis is typically associated with negative consequences and widely affects many of life's domains. Research suggests that those with a dual diagnosis compared to those with a single disorder experience much higher rates of violent behaviour, suicidal ideation, suicide and physical health problems (Thornton et al., 2012 p.429). In addition to these complications, there are compounding impacts on a person's social circumstance including loss of support networks, stress on family and anti-social behaviour. This can lead to possible homelessness and incarceration (Donald, Dower, & Kavanagh, 2005 p.1372). On a more positive note there is literature to suggest that outcomes for service users with dual diagnosis can be enhanced when services provide integrated evidence-based treatment (Drake et al., 2015).

There is little research on the role of supervision among those with dual diagnosis training however the minimal evidence suggests that it is necessary. Supervision led by qualified and competent staff in a helping environment has found to support staff in difficult situations and allow the opportunity to reflect on the process that is happening (Cookson, Sloan, Dafters, & Jahoda, 2014).

The need for dual diagnosis training to be standardised within the mental health and alcohol and other drug fields across agencies and different discipline occupations has been raised in order to ensure that care is more service-user-oriented (Hughes, 2011).

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1.1. Aims and objectives of the study

To investigate the extent and quality of staff training innovations in the dual diagnosis field, aiming to enhance staff skills to work with people experiencing severe and persistent mental illness (SPMI) comorbid with substance abuse.

2. Materials and methods

2.1. Systematic approach

A search for the relevant literature was conducted using 8 online databases – Informit, Taylor & Francis, Springer, Proquest, Expand, Sage, Psych info, Elsevier and Cinahl through the Monash library database search. The database search was conducted of material between year ranges of 2005 to the end of April 2015. An additional manual search of articles from reference lists was conducted to ensure relevant articles were not overlooked.

The keywords and National Library of Medicine, USA, Medical Subject Headings (MeSH*) headings used in the search were: Severe and persistent mental illness, mental health*, schizophrenia*, bi-polar, psych*, substance use, substance misuse, alcohol abuse, alcoholism*, Dual Diagnosis*, staff training, workforce development, staff productivity, workforce training, workforce implementation and staff implementation. Search terms were used in various combinations in order to include the maximum amount of relevant articles.

2.2. Inclusion criteria

This study was conducted in the state of Victoria in Australia. In that state the government Department of Human Services published the review and planning document *Dual Diagnosis key directions and priorities for strategic development* in 2010. The authors of the current study set out to canvas the international situation in dual diagnosis capacity building in services at that time through a review of studies in the 5 years prior (what was going on?) and 5 years post (what is or is not changing?). Studies were included in the current review if they were published after 1st April 2005 through until the end of April 2015 (when the systematic review was conducted). Literature was only included if participants were suffering from severe and persistent mental illness (SPMI) comorbid with substance abuse (of any kind), and also discussed the role of staff training.

2.3. Exclusion criteria

Studies were excluded if they were published prior to 2005, in order to canvas the most up to date literature. If the studies focused on service users with other mental health conditions and did not have comorbidity with substance abuse they were excluded because they did not meet the criteria of dual diagnosis. Studies were also excluded if they focused on children or adolescents under 18 years of age, as the focus for services in the current study setting was adult service users who would be receiving diagnosis and treatment. Articles were also excluded if they were not in English language, or if the article lacked sufficient detail to be clearly relevant.

3. Results

3.1. Database search results

Initially, 129 articles met the criteria through electronic database searching, with an additional 3 articles sourced through searching reference lists of eligible articles. The screening process was carried out by removing 2 duplicate articles and examining 34 article abstracts to remove further irrelevant articles. Following this process, 20 articles met the eligibility criteria. Of these articles, following a full review of the text of the articles, 11 were included in this review due to their discussion on staff training with relation to dual diagnosis in adult service users.

The articles included after the screening process ranged from behavioural studies, pilot studies and longitudinal studies with both qualitative and quantitative results. Articles were studies from Australia, the United Kingdom and the USA.

Themes that emerged from the articles were supervision, staff training and education, training programs and tools, organisational changes, and changes to policy and mission statement.

3.2. Supervision

Within the dual diagnosis training literature, there is little research regarding the role of supervision. The minimal evidence however suggests that it is necessary. Supervision led by qualified and competent staff in a helping environment has been found to support staff in difficult situations, allowing the opportunity to reflect on the process that is occurring (Cookson et al., 2014).

The article by Brunette et al. (2008) employed a longitudinal exploratory study method. They researched 13 community agencies within the USA over a 2-year period that had a new dual diagnosis training treatment program. They applied both a quantitative and qualitative approach to their research. Program data was collected using a quantitative fidelity scale to see the degree to which the new service adhered to established principles for integrated dual disorders treatment. The qualitative approach involved interviews, meetings and ethnographic observations to elicit responses regarding facilitators and barriers to implantation of the training program (Brunette et al., 2008, p.990).

Barriers to implementation of the program were researched. A major barrier to successful delivery was the lack of staff supervision. It was found that supervision played a key role in the success of the integrated dual disorder treatment teams in other, successful, agencies. The absence of high-quality clinical supervision was a common barrier observed in organisations with moderate or low fidelity (Brunette et al., 2008, p.994).

Sacks et al. (2013, p.489) produced similar findings to Brunette. This research reported on the capability of New York State outpatient programs to provide integrated services for dual diagnosis. They completed a longitudinal study over 3 years in which 447 outpatient programs dealing with dual diagnosis service users were researched, using the Dual Diagnosis Capability of Addiction Treatment (DDCAT) and Dual Diagnosis Capability in Mental Health Treatment (DDCHMT) tools.

One criterion in the DDCAT tool specifically looks at staff training. This criterion includes the element of staff supervision. Within these programs supervisory sessions with staff were not routinely scheduled; instead, supervision was conducted primarily on an as needed basis, which tended to narrow its focus or concentrated on specific problems that staff members were having. The 56% of staff who were surveyed suggested that having routine supervision would make them feel more capable in using the dual diagnosis training with service users (Sacks et al., 2013 p.489). However the instrument validity in this study has to be reviewed. It has been suggested that even though considerable effort has been put into developing both the DDCAT and DDCHMT indices, further study is needed to determine, among other things, the importance and proper weighting of each of the dimensions included, which in return may skew the findings in the study by Sacks and colleagues (Sacks et al., 2013 p.492).

Schulte, Meier, Stirling, and Berry (2010) also found that clinical supervision is a major element that needs to be in place to ensure careful monitoring of staff who work with dual diagnosis service users. Schulte et al. (2010) studied 124 service users with a dual diagnosis through use of a semi-structured interview and assessment, alongside 46 practitioners who were in charge of their treatment over six

assessment centres in the UK. The staff expertise had been measured against the retention rates of these service users in treatment over a three-month period. The key finding of this study was that service users who were treated by staff with lower levels of self-rated dual diagnosis competency were significantly more likely to drop out of treatment. Among external factors that were found to reduce dual diagnosis competency in self-assessment included the chance to debrief in supervision with a clinical leader (Schulte et al., 2010).

This study was limited due to the small sample size; a number of staff self-assessments also remained incomplete despite numerous reminders. It has to be noted that this study was one of the few studies that interviewed dual diagnosis service users alongside the practitioners. The inclusion of the service users in this research is likely to enable a more accurate overview of practitioner competence.

3.3. Staff training and education

The way staff training is implemented into the organisation has also been associated with successful dual diagnosis competency by staff. Matthews et al. (2011) completed a longitudinal qualitative study using the DDCAT tool in 5 organisations that provide residential inpatient programs in Australia. The DDCAT suggests that to be defined as competent in dual diagnosis treatment, staff training should be a priority, however most organisations found this to be a low priority within their organisation.

These findings closely correlate to the findings of Padwa and colleagues. Padwa, Larkins, Crevecoeur-MacPhail, and Grella (2013) conducted a study in California, USA, in which the research team evaluated the ability of 30 organisations to support dual diagnosis service users with use of the DDCAT. They found that the majority of programs did not have staff members with competency to provide dual diagnosis services other than to provide medication treatment on site.

Even though 80% of the programs in the study had care staff who had been provided with basic training for dual diagnosis, only half of the staff had more advanced training in specialised approaches for dual diagnosis service users. The highest scoring sites for dual diagnosis competency were found to have onsite staff with expertise in mental health alongside staff who had advanced training in specialised treatment approaches for dual diagnosis (Padwa et al., 2013 p.6). The need to complete further training, and be able to put knowledge into practice, may help enhance competency. Both studies, however, are limited in their sample size, and the use of the DDCAT scale as its validity has not yet been established. It shows the need for suitably qualified staff to ensure the best outcome for the service users.

A study conducted in Connecticut, USA (Bedregal, O'Connell, & Davidson, 2006), with 169 practitioners in 9 different agencies that worked with dual diagnosis service users, set out to determine knowledge and attitudes of staff toward service user dual diagnosis recovery. A quantitative tool, the Recovery Knowledge Inventory (RKI), was created by Bedregal and colleagues, in which the staff responses were ranked and used to assess the staff's views on recovery of a dual diagnosis service user (Bedregal et al., 2006). Even though specific to recovery, this study was incorporated as the findings have implications on dual diagnosis training and the needs for tailoring staff training to better prepare them to offer recovery-oriented care.

Bedregal et al. (2006) found that staff had least knowledge about the nature of the recovery process, including its non-linear nature; the idea that illness and symptom management can not only precede recovery but also be part of it (e.g., a person does not necessarily need to be free from illness and symptoms). Implications could result in dual diagnosis service users not receiving the best treatment. They determined that further training was necessary to enhance service user care (Bedregal et al., 2006 p.7).

Limitations of this study were that the training undertaken was specific to the Connecticut area, therefore data found may be specific to the attributes of the area, and replication may not be possible. Instrument validity of the RKI is also not known; Bedregal and colleagues determined the use of a larger sample size was needed to re-evaluate stability of components and reliability of the instrument (Bedregal et al., 2006, p.101).

In another USA study, this time in Texas, Mangrum and Spence (2008) focused on the education of staff and the implications this has upon the competency of staff. Mangrum and Spence (2008) researched co-occurring disorder (COPSD) programs in mental health (MH) settings versus substance abuse (SA) settings to analyse if education made a difference to staff dual diagnosis capability.

All respondents to the study had undergone 15 h dual diagnosis training independent of occupation in which they were employed. With the use of a 5-point self-rating scale, ranging from Poor to Outstanding, mental health and substance abuse workers rated their understanding and ability to demonstrate each of the competencies described by the items on the scale. It was hypothesised that SA staff would be the least academically qualified, however, results indicated that 45% of SA staff held a bachelor degree compared to only 25% of MH staff. MH staff had more years of work experience (Mangrum & Spence, 2008).

It was concluded that both MH and SA staff needed further training, which suited their area of expertise, irrespective of their qualification or work experience. Results indicated a need for increased training regarding documentation of psychiatric issues, to ensure integrated treatment planning and service delivery (Mangrum & Spence, 2008 p.168).

Schulte et al. (2010) conducted a longitudinal study into the work experience of staff at 6 treatment centres in the UK. The key findings demonstrated that service users who were treated by staff with higher levels of self-rated dual diagnosis competency were significantly less likely to drop out of treatment. Those with seven years or more of work experience in the dual diagnosis area ranked themselves highly and retained service users in treatment longer than those who rated their competency as lower (Schulte et al., 2010 p.82). However while this research is promising, it is also limited because it did not assess other variables for the service user retention, such as increased staff training. An additional limitation is that minimal numbers of participants were included in this study due to time constraints of the practitioners. Furthermore, the use of a self-rating scale could also hold social-desirability bias as participants have a tendency to give socially desirable responses instead of choosing responses that are reflective of their true feelings (Grimm, 2010, p. 2).

3.4. Training program and tools

Hughes explored the need for dual diagnosis training to be standardised across all agencies and occupations to ensure that care is more service user oriented. Hughes (2011) undertook a scoping study for the National Health Service in which an electronic survey was emailed to all lead clinicians or service managers within the North West region of England. Hughes (2011) explained that integration between mental health and alcohol and drug workers through standardised assessments would offer a better quality service for dual diagnosis service users.

The study was limited in its small sample size of only 12 individuals. Selection bias may also have been present as organisations that do not have contact details for their management online were excluded and no attempt to find contact details apart from via the internet was used.

Sacks and colleagues found, similar to Hughes, that standardised assessments should be used. The Sacks et al. (2013) research showed that even though a number of organisations had in place a standardised questionnaire tool, alongside a bio-psychosocial assessment, satisfying the criteria to meet a capable worker, it fell short of the state directive as not all staff were using the questionnaire nor felt the need to use the questionnaire. It was concluded that a standardised screening tool should be administered in a separate procedure prior to, and distinct from, the bio-psychosocial assessment to enrich dual diagnosis programs already in place (Sacks et al., 2013, p.491).

On the other hand, standardised scales are not always the most utilised tool of assessment for clinicians. McCabe, Staiger, Thomas, Cross, and Ricciardelli (2011) found that a standardised scale presented some challenges to clinicians who generally worked with a more open style of assessment. McCabe et al. (2011) conducted research to view the responses of staff to the screening tool used for dual diagnosis in an emergency department.

Dual diagnosis service users were monitored over 4 weeks and 7 clinicians undertook a focus group to discuss findings. The full two-part screening that was used in the research was thought to be cumbersome or difficult for service users to understand. Clinicians also found using the standardised scales in isolation created difficulties in recording important contextual detail around the dual diagnosis problems (McCabe et al., 2011). It should be noted that the study was specific to an emergency department of a hospital, where some questions may need to be more succinct than in other departments. Service users were also surveyed who had undertaken the questionnaire and found that it was at times confusing to answer; therefore more user-friendly questions would be beneficial.

So research shows that a structured tool is important in gaining vital information; the knowledge that every department is different and that every dual diagnosis service user is different may make using a standardised questionnaire difficult to work with.

3.5. Organisational changes

The organisation itself plays a role in supporting staff to be competent in dual diagnosis work. Schulte et al. (2010) founded that service factors such as organisational functioning and the level of organisation readiness to implement a new dual diagnosis treatment program determined success. Organisations that allowed for training to be introduced and sought further learning were more successful than those organisations that didn't allow for change (Schulte et al., 2010).

Roberts and Jones (2012) conducted a qualitative study that used a narrative approach. Participants were purposively sampled and from an initial 60 participants enough data was available to reach saturation after 19 interviews. It was found that there were three narratives that were commonly seen, 'radical, remedial and progressive' (Roberts & Jones, 2012, p.679), however all participants agreed that barriers to quality in relation to staff and dual diagnosis expertise include inadequate organisation models, including that the survival needs of organisations are often misaligned with the needs of potential service users.

Being able to implement change toward being an organisation that views the general wellbeing of service users to be of the upmost importance is necessary. However, these narratives may be limited due to their small sample size; and the narrative approach is dependent on participants narrating their lives and experiences without being overly guided. A strength of this study though is that they did include several occupational groups who support dual diagnosis service users: service user-researchers, nurses, occupational therapists, psychiatrists, psychologists, and social workers. This allowed for perspectives from several professional occupation groups, creating a more holistic view of dual diagnosis service user care.

Brunette et al. (2008) found that organisation structure plays a crucial factor in successful dual diagnosis treatment. Both chronic staff turnover and employers not supporting employee's time to train have been found to be limiting factors. In addition, some of these teams were short-staffed for long periods, resulting in high caseloads and overworked employees not being afforded time to train in dual diagnosis competency (Brunette et al., 2008).

Hughes (2011) also suggested that an organisation being willing to change is key to provide a successful dual diagnosis organisation. Hughes' research displayed that those organisations that were willing to implement change by improving attitudes and challenging stigma, as well as joint training and more collaborative work with service users, had the highest rates of competency (Hughes, 2011 p.147). However, only similar agencies were contacted in this research. Those contacted were all part of the National Health Service, therefore findings are restricted to this service and may not confer to other agencies in other countries.

Furthermore Gotham, Claus, Selig, and Homer (2010) completed an exploratory qualitative study in which semi-structured interviews were undertaken, alongside staff capability being analysed with the use of DDCAT and DDCMHT tools. A total of 66 staff were questioned in the study, both in rural and urban settings, in the USA. Findings showed that the size of an agency can denote competency of staff. Smaller agency size was associated with greater change in capability, and single-service agencies showed greater improvement than multiple-service agencies. Paradoxically, larger programs might therefore face greater challenges in initiating change despite the greater resources they have at hand (Gotham et al., 2010).

It may be that smaller agencies and agencies that have one main treatment focus are more able to quickly implement significant program change when they decide to do so, because there is less bureaucracy. However, limitations are present in implications from this research, as it would be a generalisation to infer applicability across a range of organisations and training packages, especially those carrying out different functions in their work with service users.

3.6. Changes to policy and mission statement

Matthews, Kelly, and Deane (2011) suggest that changes to organisations' mission statements and policies to include dual diagnosis service user care is necessary. Matthews and colleagues proposed that for full capability as determined by the DDCAT, an organisation's mission statement should indicate that services are provided for people with co-occurring mental health problems. Incorporating the role of dual diagnosis into the organisation's mission statement is likely to have positive implications for access and the identity of the unit itself, alongside providing a sense of belonging to the service user (Matthews et al., 2011, p.198).

Furthermore Matthews et al. (2011) suggested the inclusion of posters and informational pamphlets in reception areas and waiting rooms is needed in order to communicate that the treatment program provides services for those who have co-occurring mental health disorders. It was found that the waiting room is an ideal place to leave educational material. This improved service user-physician communication and enhanced shared decision making (Moerenhout et al., 2013, p.494). This could be very useful in helping remove the stigma felt by some service users due to their mental illness and substance abuse.

Padwa and colleagues' study further determined the need to accommodate the requirements of service users with dual diagnosis. Padwa et al. (2013) found that the programs that were rated less than competent were more informal, there was no inclusion of dual diagnosis protocols within mission statements or policy, and the availability of service user education materials for both mental health and substance use disorders was limited. Implications were that excluding this information could make the service user feel segregated and lonely. Therefore to include a role with dual diagnosis service users explicitly in organisation literature is a necessity.

4. Discussion

While there is a body of research regarding severe mental illness and substance abuse, the occurrence of studies including staff training is profoundly limited. Having reviewed 10 years of studies, there were only 11 articles that specifically addressed dual diagnosis staff training alongside mental illness and substance abuse. It is surprising there is not more published in this area. In Victoria, Australia, where the current researchers are based, it has been estimated that anywhere

between 40 and 80% of service users who experience mental illness also have issues with substance use (Department of Human Services, 2010). This should be core business, and well researched and understood core business for our sectors internationally.

Hughes explored the need for dual diagnosis training to be standardised across all agencies and occupations to ensure that care is effective and more service user oriented (Hughes, 2011). The current review endorses that position, and demonstrates a modest emerging body of work to that effect. The current systematic literature review took place in the context of a developing research project based around finding mechanisms to support staff to engage service users regarding the reasons for use of substances (Myers, Kroes, O'Connor, & Petrakis, 2017). The project team has, for some years, engaged in tertiary consultation with staff from health and welfare agencies. Staff in these agencies have expressed concern that, despite training on the impact of dual diagnosis and need to address service user identified dual diagnosis needs in an integrated manner, they did not an do not have tools and practices that would simultaneously assist to build their dual diagnosis capacity and assist them in working with service users in a more effective manner.

4.1. Limitations

This review is potentially limited by exclusion of articles that were not in English. Another limiting factor is that articles were excluded if they were published before 2005, which means that potentially relevant seminal articles might not have been included due to age. There are concerns around the power of the findings derived from the papers reviewed due to limited studies, small sample sizes, selection bias in some studies, and issues raised regarding the validity of the DDCAT tool and RKI instrument. Furthermore only two studies used responses from the service users themselves; and even then interviewers only asked service users questions in the presence of a practitioner, which may lead to influence and thus bias. It would be beneficial to seek further clarification from service users as to their views of supportive and competent practices in staff approaches.

5. Conclusions

The limited literature exploring dual diagnosis capacity building and tools so far has focused on either staff capability audit tools or screening and assessment tools for use with service users. The current review findings have provided the knowledge that supervision is necessary to ensure staff feel adequately prepared for the demands of working with service users experiencing dual diagnosis. Furthermore that staff training is often not to an optimal standard, and that competent leaders are necessary to help support dual diagnosis competent staff. It is also apparent that there are organisational barriers that exist to staff competence including agency size, organisational willingness to change, and the need to change policy to make for a more inclusive atmosphere. This review confirms a gap as to whether a dual diagnosis resource which can be used in treatment with a service user can also have an impact on dual diagnosis capacity.

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