Exploring sustainable care pathways.

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Research Article

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Abstract

Background: Patients with mental health problems experience numerous transitions into and out of hospital.

Aim: The review studies assessing clinical care pathways between psychiatric hospitalization and community health services.

Methods: We used publications between 2009-2020 to allow a broad scoping review of the published research. Sixteen review-articles were identified, 12 primary studies were chosen, both on care pathways in the transition between psychiatric hospital and community.

Results: Organizational issues: Systems and procedures to ensure clear responsibilities and transparency at each stage of the pathways of care. Resources: Information-technology in objectively improving patient outcome. Information/documentation: Providing patients with adequate structured information and documented plans at the appropriate time. Patient/families: Continuous collaborative decision-making. Clinical care and teamwork: Collaboration between mental health and other professionals to guarantee that planned activities meet patient need. Ethical issues: Respectful communication and patient-centred, non-humiliating care.

Conclusions: System and procedures ensure clear responsibilities and transparency. Information technology support decision-making and referral and objectively improve patient outcomes in care pathways. Collaboration between mental health and other professionals guarantee that planned activities meet patients' needs along with regular meetings sharing key information. Around-the-clock ambulant-teams important to transition success. Informed-shared decision-making between parties, support patient participation and respectful communication.

Introduction

Care pathways are used increasingly worldwide to organize patient care. However, there are different views about their effectiveness, outcomes, and impacts Vanhaecht et al., (2007, 2010). There is a growing interest in extending care pathways in both primary and mental health care to improve the quality of service through enhanced care coordination. Care pathways are understood as interventions for the care management of mental health patients who need complex health services during a well-defined period. Vanhaecht et al., (2007, 2010) seems to be a consensus on the importance of early intervention in the treatment of mentally ill patients. Rutman et al., (2017) writes about the evidence between the relationship, care pathways and care coordination are sparse.

Care pathways are popular tools to improve the quality of the diagnostics, treatment, and follow-up of hospital patients (Panella et al., 2003, Seys et al., 2019). Mental healthcare delivery systems and policies have shifted the focus from more extensive psychiatric inpatient settings to community services. Yet

mental health in-patient facilities continue to discharge patients too early, without clear discharge planning, and the post-charge follow-ups do not function properly (Nimura et al., 2016).

People with mental illness experience stigma and social rejection when returning to their communities (Walter et al., 2019). Research reports engagement in 6–12 months community rehabilitation compared to shorter inpatient rehabilitation (Zisman-Ilani et al., 2019). Transition of care is particularly important for patients with mental health problems who experience numerous transitions into and out of hospital. This transition comprises hospital discharge, post-discharge support at the next level/location of care and the engagement of the patient and caregiver in these processes (Bauer et al., 2009).

Patients experience multiple hospitalizations for brief periods (Botha et al., 2010). These patients have diverse preferences for care and face a variety of barriers associated with mental health treatment. This context suggests the urgent need for easy access to a range of treatments and providers (Cole and Houston, 1999). Essential elements in this care process are open communication and well-organized, delegated coordinating roles for interprofessional care teams (Vanhaecht et al., 2006, Aoki, 2020). With care pathways, high-performance teams can be built (Rutman et al., 2017). Chew-Graham et al., (2008) pointed out that, depending on its quality, communication could function as both a promoting factor and a barrier to success. Starfield (2015) identified the following key elements in the integrative functions of primary care: first contact, continuous, comprehensive care and coordinated care. These four elements are implicitly incorporated into the health care system to improve outcomes (Valentijn et al., 2013). Vickers et al., (2013) noted that expanding integrated mental health care in the primary care setting/services resulted in increased staff and provider satisfaction. Vanhaecht et al., (2007,2010) defined the term ‘care pathway’ as follows: ‘A care pathway is a complex intervention for the mutual decision making and organization of care processes for a well-defined group of patients during a well-defined period’.

Care pathways are a way to improve care coordination and operationalise the patient-focused care concept (Norwegian Ministry of Health and Care Services, 2009). The aim of care pathways is to improve outcomes by providing a mechanism to coordinate care and reduce fragmentation and, ultimately, costs Katschnig, (2011). Waters et al., (2015) suggested that documentation does not reflect patients’ views on treatment. However, several studies have revealed that care pathways improve the components of care coordination (Fridgen et al., 2013, Van Houdt et al., 2013).

Care pathways are not simple or straightforward but rather complex interventions; they comprise separate elements that seem to be essential to the proper functioning of the intervention; they target multiple outcomes and involve multiple interventions, and the ‘active component’ is difficult to specify (Panella et al., 2003, Vugts et al., 2018). Consistent with this definition, the characteristics of care pathways include ‘an explicit statement of the goals and key elements based on evidence, best practice, and patients’ expectations and their characteristics’. This includes a range of elements: facilitation of communication among team members, patients, and families; coordination of the care process by coordinating the roles and activities of interprofessional care teams, patients, and their relatives; documentation, monitoring,

and evaluation of variance and outcomes; and identification of the appropriate resources (Panella et al., 2003). Thus, the aim of a care pathway is to enhance the quality of care across the continuum by improving risk-adjusted patient outcomes, promoting patient safety, increasing patient satisfaction, and optimizing the use of resources (Shiell et al., 2008; Schrijvers et al., 2012; Vugts et al., 2018).

The extent to which these discourses have impacted on individual clinical practice and care experiences remains unclear. Crucially, the involvement of patients at points of transfer of care from the community to inpatient settings and back to the community has been underreported. Tveiten et al., (2011) advised giving patients in mental health contexts a voice to express their concerns and have them addressed. A study about patients' knowledge and the power imbalance in the doctor–patient relationship supports our assertions that patients need knowledge and power to participate in shared decision-making processes (Annels et al., 2010).

The study offered several recommendations for enhancing patients' participation by simplifying the trialled pathway and the accompanying guidelines and strategies to improve communication between nurses and general practitioners. Pelto-Piro (2013) found that paternalism still clearly appears to be the dominant perspective among staff caring for patients in psychiatric inpatient care settings. Grim et al., (2019) described obstacles to legitimizing patient knowledge, including relational issues that patients highlighted: being independent, often being dismissed and unable to edit their testimonies. Health providers typically described workflow issues, patients' insufficient decision-making competence and patients' vulnerability to stress factors

Care Pathways are developed and implemented across the international health care arena, evidence to support their use has been equivocal, and the understanding of their 'active ingredients' is poor. CPs are 'complex interventions' and are increasingly being implemented for a variety of purposes in a range of organizational contexts (Vanhaecht et al., 2007, 2010; Pound et al., 2017). The development and implementation of care pathways are based on interprofessional teamwork, an understanding of the practical organization of care and the integration of a set of evidence-based key interventions (Vanhaecht et al., 2007, 2010). A recent study evaluating the implementation of a transitional discharge model, an intervention for community integration of clients with mental health illness, concluded that this implementation provides cost-effective supports to help keep clients in the community and out of hospital (Forchuk et al., 2019). And as reported previously (Sather et al., 2018), the establishment of relationships among patients, inpatient staff, and community staff is of utmost importance in the transition process between inpatient and community mental health care.

In mental health care pathways involve a significant change work which should give the patients more holistic and coherent services but are hampered by professionals experiencing large workload, frustration and stress associated with registration, and administration systems (Norwegian Directorate of Health 2020; SINTEF, 2020). A bottom-up implementation strategy for implementing care pathways is recommended (Jabbour et al., 2018). Ruben von Zelm (2019) concluded that the implementation and normalization of a care pathway depends on the following: involved professionals, including physicians,

to achieve the desired outcomes; understanding and appreciation of the content, goals; and related standardization of the care pathway and play an active role in the improvement team. Implementing the pathway requires: resources, including a CP facilitator and a clinical data system; the improvement team's experience, collaboration, and clinical leadership; and individual experience and expertise (Seys et al., 2019).

The purpose of the study is to provide an overview of studies assessing clinical care pathways for people with mental health problem in the transitional process from hospital to the community.

Methods

This review was guided by Arksey and O$Mal \leq ys$ (2005) five-stage methodological framework including: 1) identify the research question; 2) identify relevant studies/articles in a literature search; 3) select relevant studies/articles based on inclusion and exclusion criteria; 4) chart the data extraction in a standardized form; and finally, 5) collate, and summarize the results, including the assessment of methodological quality. A scoping review method was chosen to gain a comprehensive overview of the literature to map key concepts, identify knowledge gaps and convey the breadth and depth of the field (Moher et al., 2009; Tricco et al., 2016; Munn et al., 2018).

Inclusion and exclusion criteria

Disagreements regarding inclusion or exclusion were resolved through discussion with two other researchers. The study population included individuals over 18 years old. Care pathways for specific mental health diagnoses were not searched for but included if they fitted the overall purpose of the study. We limited the search to 2009–2020 to allow a broad scoping search of the published research. We excluded editorials and discussion papers, and research protocols. Figure 1. presents a complete overview of the inclusion and exclusion criteria.

Search strategy

Stage 1: Identify research questions

First step was to identify the research. The research questions presented as above.

Stage 2: Identify relevant studies/articles

To ensure the identification of relevant literature, an experienced librarian critically reviewed the search strategies, search terms and inclusion and exclusion criteria. These searches included studies published in English between 2009 and 2020. The following scientific electronic databases with keywords were systematically searched: ProQuest/Health & Medicine, CINAHL Complete, Cochrane trials and Cochrane reviews, PsychoInfo, Medline, PubMed, and Google Scholar.

The terms were included to represent care pathways for people with mental illness in transitions from hospital to the community: care pathways, integrated care pathways, critical pathways, clinical pathways, mental health, adults, combined with transitions from hospital to community, referral, discharge, care planning, coordinating, hospital and mental health services. We reviewed the reference lists of studies identified– especially systematic reviews and traditional literature reviews–and included relevant studies in the scoping exercise. Key journals were also hand-searched to identify articles that may have fell outside the database and reference list searches.

Stage 3: Selection of relevant studies based on inclusion and exclusion criteria

This stage entailed the study selection process as illustrated in a Prisma flow diagram [Fig. 1]. The 283 articles in the scoping review resulted in 28 eligible full text articles (Moher et al., 2009; Munn et al., 2018).

To meet the overall purpose of the scoping review, the included 28 studies focused on care pathways in transition between psychiatric hospital and the community mental health services.

Stage 4: Charting the data

We extracted and coded each eligible and included article according to the following descriptive content of the 28 selected studies: 16 review studies and 12 primary studies. The descriptive data comprised authors, country of origin, aims, data collection and measurements, study sample and results. The extraction and charting of the data were conducted by author with input from two other researchers. Descriptive content of the selected review studies is presented in Table 1 and Table 2 and Table 3.

Stage 5: Collating, summarizing, and reporting results

To achieve a thematic presentation of the results and avoid bias, the lead author and the two other researchers read and reviewed the included full-text articles. The result of each of the included articles were summarized in separate text description paragraphs by the lead author. The other researchers read the text descriptions and suggested edits when necessary. These summaries were used to identify challenges in care pathways in transitions from hospital to the community for people with mental health problems, including their family and caregivers. The lead author identified what types of approaches and interventions models in the research literature showed evidence and improved the quality and efficiency of care pathways of hospital-to-community transitions for people with mental illness. The research team then discussed the approaches and interventions model of the study results and the challenges, themes and approaches identified. We used the Critical Appraisal Skills program (2018) to assess the methodological quality of the qualitative studies. The tool contains ten questions and assesses quality in three domains: validity, presentation, and impact of study results. We used the Cochrane Collaboration Risk of Bias Tool (Higgins et al., 2011) to evaluate the studies that included quantitative results. This is a six -domain tool with a total of seven items that assess selection (two item), performance (one item), detection (one item), attrition (one item), reporting (one item), and other sources of bias (one item). The

risk of bias was evaluated independently by author and the two researchers who extracted the data. Discrepancies were resolved by discussions until a consensus was reached (Higgins et al., 2011).

Results

Characteristics of the Included Studies

The aims of the six (of 16) review articles with quantitative data were as follows: identify the effectiveness of care pathways in mental health (Allen et al., 2009) provide evidence to improve the quality and efficiency of special diagnostic groups (Chen et al., 2016) assess the effects of pathways on practice, patient outcomes, length of stay and hospital costs (Rotter et al., 2010) provide an overview of care and identify components for more effective transitions (Viggiano et al., 2012) describe and evaluate interventions in the transition from inpatient to outpatient care (Vigod et al., 2013) and compare mental health pathways in 23 different countries (Volpe et al., 2015).

For nine of 16 articles with both quantitative data and qualitative data, the aims included: examining the duration of untreated psychosis (Anderson et al., 2010) highlighting evidence for each pathway (Ameral et al., 2018) determining the relation between effectiveness and teamwork (Deneckere et al., 2012) identifying families' experiences (Doody et al., 2017) gathering evidence on the quality of information transfer between primary care and specialist health care (Durbin et al., 2017) examining stigma-related influences on pathways (Gronholm et al., 2017) understanding patient experiences after discharge from hospitals to community health care services (Mutschler et al., 2019) exploring the effects of implementation of health information technologies in care pathways (Neame et al., 2019) and identifying effective coordination between levels of care and continuity in the transition process (Storm et al., 2019) and to synthesize the available literature on pathways to care in 'At-Risk mental States/ARMS or prodromal psychosis (Allan et al., 2020).

Among the primary studies (12 articles), the aims for the three articles with quantitative data were as follows: assess personnel perceptions of care processes and examine whether staff consider the differences between pathways with standardized clinical procedures and pathways without such procedures (Biringer et al., 2017) analyse whether care pathways lead to better organization of care processes (Seys et al., 2017) determine whether the implementation of a pathway improves diagnosis and treatment in conformity with published guidelines (Steinacher et al., 2012).

Of the twelve articles with qualitative data, the aims were as follows: understand the contextual influences, mechanisms and outcomes that affect the implementation of online pathways (Akehurst et al., 2018) evaluate how the 'payment by result' model works in community mental health, including its impact on the quality of patient care, staff and primary care (Khandaker et al., 2013) assess the extent to which pathways support or inform the creation of elements of frameworks to improve care coordination across the primary hospital care continuum (Van Houdt et al., 2013) explore the nature of service user involvement in the admission and discharge processes of acute inpatient mental health care (Wright et

al., 2016) gain a better understanding of the transition phase from psychiatric hospitalization back to community for people diagnosed with schizophrenia(Hasson-Ohayon et al., 2016) identify patients and healthcare professionals challenges and barriers in the transitional process between primary to secondary mental health services(Sather et al., 2016, 2018, 2019) and determine whether implementation of a pathway would improve diagnosis and treatment in conformity with published guidelines (Teshager et al., 2020).

Tables 1 and 2.

The quality appraisal of the articles that included quantitative research methods indicated that the studies had a high risk of bias. One of three studies met all ten criteria suggested by CASP and two of three articles met eight and five of ten criteria suggested by CASP. Other bias description' was noted in 16 of 28 of the articles for reasons that included implementation problems, contamination between conditions, and small sample size (Higgins et al., 2011; Malterud et al., 2016).

Care Pathways Challenges between Mental Health Services

There were six major themes identified in the articles related to the challenges and barriers of pathways in the transition from hospital to community: (a) Organization, (b) Resources, (c) Information and Documentation, (d) Patients and Families, (e) Clinical Care and Teamwork, and (f) Ethics.

Organization

Research found that the first contact for patients with psychosis was a physician, but the referral source was emergency services (Anderson et al., 2010). Viggiano et al., (2012) found that a core set of transition intervention components could stimulate the development of interventions at the patient, provider, and system levels. More effective transitions in mental health care pathways included special procedural guidelines and instructions and links to national guidelines provided in the transition phase; prehospital, hospital, outpatient, home (Amaral et al., 2018). Amaral et al., (2018) indicated the importance of the first contact in pathways to mental health care, and that there is a lack of integration between emergency departments, hospitals, and community services. Hasson-Ohayon et al., (2016) revealed different characteristics of the transition phase for people with schizophrenia who had just returned to the community following a psychiatric hospitalization. The article emphasized the non-linear nature of the transition process and the special challenges involved. Storm et al., (2019) found continuity challenges in care during transitions and services for people with serious mental illness. Effective approaches addressed coordination challenges and resulted in improvements in service utilization, social functioning, and quality of life. Seys et al., (2017) identified a significant difference between care processes with and without care pathways, for 'coordination of care' and 'follow-up care' in primary care. Biringer et al., (2017), found that Norwegian employees considered follow-up care processes and collaboration with primary care to be poorer than the other dimensions of care organizations. Care processes with written clinical procedures were reported to be better organized than processes without such standardization. Sather et al., (2018) exploring community health personnel's experiences of care pathways in patient

transition between inpatient and community mental health services, suggested that systems and procedures should be developed to ensure clear responsibilities and transparency at each stage of the pathway of care.

Resources and Outcomes

Allen et al., (2009) found that there was a positive impact on length of stay and hospital costs with care pathways. Khandaker et al., (2013) indicated that care pathways were effective and allowed for active case management and clear clinical leadership. The care pathway led to more focused interventions being offered. Vigod et al., (2013) concluded that transitional intervention components are feasible and likely to be cost-effective. Facilitated pre-discharge, post-discharge, and transition processes; and promoted timely communication of inpatient staff with outpatient care or community service providers after discharge was successful components that reduced hospital readmission. Chen et al., (2015) found that care pathways showed promising results in increasing the quality and efficiency of care for patients diagnosed with schizophrenia but that more evidence was needed. Akehurst et al., (2018) concluded that the use of localized, online evidence-based care pathways across primary to secondary care increased over time and showed that care pathways were used in leadership, relationships, and networks to support decision making and referrals and provided information on the availability of resources. Neame et al., (2019) found that health information technology supported care pathways and improved objectively measured patient outcomes.

Information and Documentation

Allen et al., (2009) found that care pathways are effective with patients with predictable mental health symptoms. Care pathways improve documentation, communication, and change professionals' behaviour positively. Rotter et al., (2010) found that CPs reduced in-hospital complications and improved documentation without negatively impact to the length of stay and hospital costs. Durbin et al., (2012) focused on the content and/or timing of written communications and found variation in the quality of communication between CPs and mental health specialists and that patient-centred care was among the least investigated topics. Research found that existing and new care pathways in four communities had positive effects on exchanging information; formulating and sharing goals; defining and knowing each other's roles, expectations, and competences; and promoted the relationship between care pathways and care coordination (Akehurst et al., 2018). Sather et al., (2016) found that that clinical pathways are useful for securing key objectives at the interface between hospital and community based psychiatric care. Improved information sharing in/between all care systems is imperative to strengthen patients' participation in decision-making, ownership of care planning and improving adherence to treatment. Adequate communication and proper documentation systems were factors in this success by avoiding communication errors that were the main barriers. Biringer et al., (2017) found that care processes with a written clinical procedure were better organized than processes without such standardization. Gronholm et al., (2017) identified themes related to the relationship between stigma and care pathways among people experiencing first-episode psychosis or at a clinically defined risk of developing psychotic disorder. The findings indicated that a lack of information could result in increased perceived stigma. Akehurst et

al., (2018) showed that care pathways were used to support decision making and referrals and provided information on the availability of resources. Sather et al., (2019) emphasized that former patients reported shared decision making more precisely as *informed* shared decision making, and that shared information between all parties is key. Teshager et al., (2020) found that stigma and lack of awareness about where treatment is available were barriers to seeking appropriate care.

Patient and Family's Participation

Steinacher et al., (2012) tested the effects of clinical care pathways for schizophrenia in open general psychiatric wards with two different implementation strategies. The authors offered no explanation for their findings. Due to the lack of resources the role of the service user was diminished (Wright et al., 2015). Patients revealed oscillation between feelings of strength and vitality to vulnerability and despair in the transition phase and emphasized the importance of supportive relationships and work (Hasson-Ohayon et al., 2016). Doody et al., (2017) explore families' experiences of engaging in care planning within adult mental health services. Families perceived that care planning was uncoordinated and that their lived experiences were not always appreciated; they did not regularly experience collaborative decision making but did experience communication constraints, protection of confidentiality and providers' claims of 'insider knowledge' of service users. Sather et al., (2016,2018,2019) suggested that improved information sharing in/between all care systems is imperative to strengthen patients' participation in decision making, ownership of the care plan and improve adherence to treatment. Patient participation in sketching of care plans were a success factor Storm et al., (2019) emphasized that effective coordination of pathways of care resulted in better social functioning and quality of life. Shared decision-making support for caregivers was found to be important, especially when patients needed complicated medication regimes. Teshager et al., (2020) found that there is significant delay in seeking modern psychiatric treatment with religious healers providing the first source of help for mental illness. Allan et al., (2020) found that mental health professionals, and general practitioners played a key role in help seeking. Family involvement was also found to be an important factor.

Clinical Care and Teamwork

Allen et al., (2009) found that care pathways promoted interprofessional aspects of care and positively influenced professional attitudes. Durbin et al., (2012) found that patient-centered care was among the least investigated topics between care pathways and mental health specialists. Deneckre et al., (2012) revealed that care pathways have the potential to support interprofessional teams in enhancing teamwork. Khandaker et al., (2013) found that a care pathway model for community mental health services led to more focused interventions being offered and implemented, resulting in positive changes; staff were also held accountable for clear standards of care. Arbitrary time frames, strict criteria and thresholds for different teams could create issues. Improved communication, a flexible and patient-centred approach, staff supervision, and increased support in primary care were felt to be central to this model working efficiently and effectively. Hasson-Ohayon et al., (2016) reported the formal professional support as important to their recovery process in general and in their transition to the community, mostly associated with the need for continued care and having a therapeutic setting to attend. Sather et al.,

(2016, 2018) suggested that patients' participation in plans and working hours of ambulant teams were success factors. A key person to handle all information and communication between levels of care was recommended.

Ethical Issues

Volpe et al., (2015) found that the role of general practitioners could either decrease or increase the referral time to care pathways. Stigma and discrimination towards patients with mental illness are limiting factors for the equal delivery of mental healthcare.

Wright et al., (2015) focused on knowledge sharing at points of transition of care into and out of inpatient mental health services. The findings showed a loss of the voice of service users at key transition points. It was concluded that these encounters can have lasting negative effects, indicating the importance of ensuring that service users have a voice in determining what happens to them. Gronholm et al., (2017) identified themes in relation to stigma on pathways to care among a target population and illustrates the complex way stigma-related processes can influence help-seeking and service contact among first-episode psychosis and at-risk groups. Lack of information could result in increased perceived stigma. Sather et al., (2016, 2018) exploring community health personnel experiences of care pathways in patient transition between inpatient and community mental health services, suggested respectful communication to avoid humiliating the patients. The complexity of welfare systems negatively affected patient dignity. Mutcheler et al., (2019) identified themes related to transition, patient safety, supported autonomy, and activities in the community. Barriers were poverty, interpersonal difficulties, and stigma. Teshager et al., (2020) also found that stigma and lack of awareness about where treatment is available were barriers to seeking appropriate care for patients with various diagnosis of mental illness.

Discussion

The literature review identified themes and issues relating to: Organization; Resources and Outcomes; Information and Documentation; Patient and Family's Participation; Clinical Care and Teamwork; and Ethics. Articles supporting the included studies are indicated with reference number in italics.

Issue concerting the first of our themes, *organization*, seem to embrace our findings concerning improving pathways of care, and system and procedures should be developed to ensure clear responsibilities and transparency at each stage of the pathways of care.

Effective transitional interventions at patient, provider and system levels were found to be feasible and likely to be cost-effective. To address transitions in the health mental population more effectively care pathways need special procedural guidelines, instructions and links to national guidelines provided in the prehospital, hospital, outpatient, and home phase (Viggiano et al., 2012). A study of Sather (2020) concluded that to achieve sustainable integrated care, pathways of care should also describe content of the transitional phase in and out of hospitals and community services

Facilitated pre-discharge, post-discharge, and transition processes, and promoted timely communication of inpatient staff with outpatient care or community service providers after discharge were successful components (Vigod et al., 2013). First contact is important in pathways of mental health care, and there is lack of integration between emergency departments, hospitals, and community (Amaral et al., 2018). Care pathways led to better coordination of care and follow up with primary care (Biringer et al., 2017). The first contact for patients was a physician, but the referral source was emergency services. Ethnic determinants of the pathway, or the impact of the pathway to care on treatment delay was not found (Anderson et al., 2010). Earlier research has stated that the context of care pathways implemented in complex organizations must be considered in both external and internal contexts and have better descriptions of implementations and the contextual factors (Øvretveit, 2011, Seys et al., 2019). An understanding of the development changes and implementation process of a particular context is critical to support multidisciplinary teams in their search for excellence; and it is recommended that clinicians and managers should evaluate each of their individual projects to ensure that patient and organizational outcomes are improved (Vanhaecht et al.,2009, 2012). Information technology supported care pathways and improved objectively measured patient *outcomes and resources* (Akehurst et al., 2018, Neame et al., 2019). It supports decision-making and referral, and available resources; made more cost-effective care pathways and allows for active case management and clear leadership, relationships, support decision-making and referral, and available resources (Seys et al., 2017; Akehurst et al., 2018; Mutschler et al., 2019). It was found that care pathways may lead to better clinical outcomes, ensure more focused interventions and be valued by workforce (Allen et al., 2009; Khandaker et al., 2013; Vigod et al., 2013). This is in line with Mater (2014), who emphasized that development and implementation of care pathways are knowledge-based systems, care pathways optimize medical behaviour, and as clinical decision support systems, care pathways play a role in improving healthcare quality (Mater et al., 2014). Our review revealed that pathways are a solution to safety problems and can improve extended care episodes as part of preventing unnecessary hospitalization (Wright et al., 2016; Mutschler et al., 2019; Storm et al., 2019). Development and implementation of care pathways is labour-intensive; thus, resources should be optimally used.

Care pathways in mental health were found to be effective and improve *information and documentation*, providing patients with enough detail about their care and structured, documented plans at the appropriate time. Former mental health patients reported that shared information between all parties involved in care pathways is key. Proper documentation systems between health personnel, and patient participation in plans were success factors.

Opportunities for information sharing, implementation of systematic plans, use of e-messages were identified for successful patient transition, and the absence and systematic plans and delay in information sharing were barriers found to impede the patients' transition between levels of care (Sather et al., 2016, 2018, 2019).

Care pathways were found to reduce in-hospital complications and improved documentation without negative impact on the length of stay and hospital cost (Rotter et al., 2010). This is in line with research in

somatic health care (Aziz et al., 2012; Letton et al., 2013) that has shown that the implementation of a care pathway leads to increased or clearer documentation of care, and better interprofessional teamwork and better organized care (De Bleser et al., 2006; Gulbrandsen et al., 2016).

Continuous collaborative decision-making and *patient and family's participation* was found to be an important factor related to pathways to care. Care pathways affected patient safety, supported autonomy and activities in community (Mutschler et al., 2019). It was found that patients revealed oscillation between feelings of strength and vitality to vulnerability and despair in transition phase and emphasized supportive relationships and work (Hasson-Ohayon et al., 2016). Continuous collaborative decision making was emphasized, but this was not regularly experienced. Families perceived that care planning was uncoordinated and that their lived experiences were not always appreciated (Doody et al., 2017). It was also found that improved information sharing in/between all care systems is imperative to strengthen patients' participation in decision making, ownership of care plans and improve adherence to treatment. Additional, patient participation in care plans were success factor (Sather et al., 2016, 2018, 2019) as well as shared decision-making support for caregivers. Power and trust seem to be important factors that may increase as well as decrease patients' dependency, particularly as information overload may increase uncertainty (Pelto-Piri et al., 2019).

Clinical care and teamwork were found to be important in pathways of care; collaboration between mental health and other professionals was a guarantee that planned activities meet patients' needs, and pathways gave more interprofessional aspects, changing professional attitude positively (Allen et al., 2009). Regular meetings sharing key information and avoidance of delays that extend inpatient status and block satisfactory transition to the community setting are key (Sather et al., 2018). It was revealed that care pathways have the potential to support interprofessional teams in enhancing teamwork. The most frequent positive effects were on staff knowledge, interprofessional documentation, team communication and team relations (Deneckere et al., 2012). Open communication, well organized and delegated coordinating roles for interprofessional care team delivery are essential elements so that the service is consistent with agreements reached with patients and relatives (Vanhaecht et al., 2016, Aoki, 2020).

Mental health professionals support is key in help seeking for patients and important to their recovery process in general alongside transition to the community (Hasson-Ohayon et al., 2016). Patient-centred care was among the least investigated topics between mental health specialists (Durbin et al., 2012). Research indicated that creating reliable treatment and care processes, a stimulating social climate in wards, and better staff-patient communication enhances patient perceptions of safety during inpatient care (Pelto-Piri et al., 2019).

The review showed considerable variations in the *ethics* relating to mental health care pathways. The role of general practitioners could either decrease or increase the referral time, and stigma and discrimination towards patients with mental illness are limiting factors for the equal delivery of mental healthcare (Volpe et al., 2015). The results highlighted the disconnect that occurs for patients as they transition from

hospitals back to their communities, indicating the need for effective, ethical transitional interventions that target these challenges (Mutschler et al., 2019). Lack of information could result in increased perceived stigma and devaluation of people with mental health challenges. Stigma and lack of awareness where treatment is available were barriers to seeking appropriate care for patients with various diagnoses of mental illness. The complexity of welfare systems negatively affected patient dignity, with patients and health personnel viewing treatment options differently. Respectful communication to avoid humiliating the patients was emphasized (Sather et al., 2016; Wright et al., 2016). Without ownership in decision making, patients in psychiatric inpatient care settings may prove less treatment compliant (Pelto-Piri et al., 2013). A recent study suggested that greater epistemic justice might be achieved by shared decision-making processes in which patients are engaged as a full, collaborative partner in their care (Grim et al., 2019)

Many of the studies were characterized by small study samples, no randomization and lack of control group, which increases the risk of bias and the ability to draw conclusions about outcomes (Higgins et al., 2011). Despite a comprehensive literature search of multiple databases that used broad search terms, the search may have missed relevant studies. These searches did not result in the inclusion of additional studies. It is recommended to consult experts in the fields as a separate but optional stage in the search strategy (Arksey & O'Malley, 2005; Tricco et al., 2016). However, expert consultation was not feasible in this study. Discussions among the authors on the depth and breadth of the review during the study selection stage may have resulted in a reduction of the scope. An assessment of methodological quality of the studies is debated within the scoping review tradition (Pham et al., 2014). In the present review, the quality assessment was performed to identify the strength of the evidence base and was not used as a tool for the exclusion of studies.

Conclusion

In pathways of care, systems and procedures can ensure clear responsibilities and transparency. Information technology could support decision-making and referral to improve objectively patient outcomes in care pathways. Collaboration between mental health and other professionals can guarantee that planned activities meet patients' needs through regular meetings sharing key information. Around-the-clock ambulant teams in the community are important alongside informed shared decision making, information and documentation between all parties to support patient participation. Respectful communication can avoid patient humiliation that could undermine treatment compliance. The combination of professional and patient perspectives best promotes positive outcomes from sustainable care pathways

Declarations

Ethics approval (and consent to participate, not applicable). This scoping review article don't have to be approved by the Norwegian Centre for Research Data (with a NSD project number) or with no additional approval required for ethical clearance with The Regional Commitees for Medical and Health Research

Ethics (REC) approval. All phases of the study were conducted according to the Helsinki Declaration and ethical principles in research. The authors declare no competing interests.

Consent for publication (not applicable).

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References

1. Allan, SM., Hodgekins, J., Beazley, P. & Oduola, S. (2020). Pathways to care in at-risk mental states: A systematic review. Early Intervention in Psychiatry. https://doi.org/10.1111/eip.13053
2. Allen, D., Gillen, E. & Rixson, L. (2009). Evidence synthesis - Systematic review of the effectiveness of integrated care pathways: what works, for whom, in which circumstances? International Journal Evidence Based Healthc,7:61–74. doi: 10.1111/j.1744-1609. 2009.00127.x
3. Akehurst, J., Sattar, Z., Gordon, I. & Ling, J. (2018). Implementing online evidence-based care pathways: A mixed-methods study across primary and secondary care. BMJ Open, 8: e022991. https://doi:10.1136/bmjopen-2018-022991
4. Amaral, CB., Onocko-Campos, R., Santos de Olivera, PR., Pereia, MB., Ricci, EC., Pequeño, ML. & Emerich, B., Dos Santos, RC. & Thornicroft, G. (2018). Systematic review of pathways to mental health care in Brazil: narrative synthesis of quantitative and qualitative studies. Int J Ment Health *Syst*, 12:65 https://doi.org/10.1186/s13033-018-0237-8
5. Anderson, KK., Fuhrer, R. & Malla, AK. (2010). The pathways to mental health care of first-episode psychosis patients: a systematic review. *Psychological Medicine*, 40, 1585–1597. Cambridge University Press. http://doi: 10.1017/S0033291710000371
6. Annells, M., Allen, J., Nunn, R., Petrie E., Clark E. & Robins, A. (2010). An evaluation of a mental health screening and referral pathway for community nursing care: nurses' and general practioners' perspectives. Journal of Clinical Nursing, 20(1–2):214–26.

7. Aoki, Y. (2020). Shared decision making for adults with severe mental illness: A concept analysis. *Japan Journal of Nursing Science.*e12365. https://doi.org/10.1111/jjns.12365
8. Arksey, H. & O'Malley, L. (2005). Scoping Studies: Towards a Methodological Framework. Int. J. Social Research Methodology, 8 (1):19–32. https://doi:10.1080/1364557032000119616
9. Aziz, EF., Javed, F. & Pulimi, S. (2012). Implementing a pathway for the management of acute Coronary syndrome leads to improved compliance with guidelines and a decrease in angina symptoms. Journal Health arec Qual, 34: 5–14.
10. Bauer, M., Fitzgerald, L., Haesler, E. & Manfrin M. (2009). Hospital discharge planning for frail older people and their family. Are we delivering best practice? A review of the evidence. Journal of Clinical Nursing, 18, 2539–2546.
11. Botha, UA., Koen, L., Joska JA, *et al.* (2010). The revolving door phenomenon in psychiatry: comparing low-frequency and high-frequency users of psychiatric inpatient services in a developing country. Social Psychiatry Psychiatric Epedemiol. 45(4):461–468.
12. Biringer E., Storkson S., Hartveit M., Armus J. &Vanhaecht K. (2017). The organization of 22 care pathways in Western Norway Regional Health Authority. *Sykepleien.no/Forskning* 4220/Sykepleienf.62067
13. Chen, S., Awan, S., Rajji, T., Abdool, P., George, TP., Collins, A. & Kidd, SA. (2016). Integrated Care Pathway for Schizophrenia: A Scoping Review. Administrable Policy Mental Health, (43): 760-767., https://doi: 10.1007/s10488-015-0696-z
14. Chew-Graham, C., Slade, M., Montâna, C., Stewart, M. & Gask, L. (2008). Loss of doctor-to-doctor communication: lessons from the reconfiguration of mental health services in England. *J* Health Service Research Policy, 13(1):6–12.
15. Cole, L. & Houston S. (1999). Linking outcomes management and practice improvement. Structured care methodologies: evolution and use in patient care delivery. Outcomes Manaingg Nurse Practice. 3 (2):88–94.
16. De Bleser, L., Depreitere, R.., Waele, K.D., Vanhaecht, K., Vlayen, J. & Sermeus, W. (2006). Defining pathways. Journal of Nursing Management, 14 (7): 553–563.
17. Deneckere, S., Euwema, M., Van Herck, P., Lodewijckx, C., Panella, M., Sermeus, W. & Vanhaecht, K. (2020). Care pathways lead to better teamwork, Results of a systematic review. Social Science & Medicine, 75: 264–268, https://doi: 10.1016/j. socscimed. 2012.02.060
18. Doody, O., Butler, MP., Lyons, R & Newman, D. (2017). Families' experiences of involvement in care planning in mental health services: an integrative review. Journal of Psychiatric and Mental Health Nursing, 24, 412–430, doi: 10.1111/jpm.12369.
19. Durbin, J., Barnsley, J., Finlayson, B., Jaakkimainen, L., Lin, E. & McMurray, J. (2012). Quality of Communication Between Primary Health Care and Mental Health Care: An examination of Referral and Discharge Letters. Journal of Behavioral Health Services & Research, 445–461, https://doi: 10.1007/s11414-012-9288-9.

20. Fridgen, GJ., Aston,.J, Gschwandtner, U., Pflueger, M., Zimmermann, R., Studerus E, *et al.* (2013). Help-seeking and pathways to care in the early stages of psychosis. *Social Psychiatry* Psychiatr *Epidemiol*, 48(7): 1033-43.
21. Forchuk, C., Martin, ML., Corring, D., Sherman, D., Srivastav,a R., Harerimana, B. & Cheng, R. Cost-effectiveness of the implementation of a transitional discharge model for community integration of psychiatric clients: Practice insights and policy implications.
22. International Journal of Mental Health, 48(3): 236–249. Gronholm, PC., Thornicroft, G., Laurens, KR. & Evans-Lacko, S. (2017). Mental health-related stigma, and pathways to care people at risk of psychotic disorder or experiencing first-episode psychosis: a systematic review. Psychological Medicine, 47:1867–1879. https://doi:10.1017/S0033291717000344
23. Grim, K., Tistad, M., Schøn, UK. & Rosenberg, D. (2019). The Legitimacy of User Knowledge in Decision-Making Process in Mental Health Care: An Analysis of Epistemic Injustice. *Journal of Psychics Rehabilitation, Mental Health.* http://doi.org/10.1007/s40737-019-00145-9
24. Gulbrandsen, P., Clayman, ML., Beach, MC., Han, PK., Boss, EF., Ofstad, EH. & Elwyn, G. (2016). Shared decision-making as an existential journey: Aiming for restored autonomous capacity. *Patient Education and Counselling*, 99.:1505–1510. http://dx.doi.org/10.1016/j.pec.2016.07.014
25. Hasson-Ohayon, I., Lerer, G., Tuval-Mashiach, R., Shamir, E. & Roe D. (2016). Having someone waiting for you outside: Transition from psychiatric hospitalization to the community, Psychosis, 8:3, 250–259, http://doi:10.1080/17522439.2016.1145731.
26. Higgins, J.P.T., Altman, D.G., Gøtzsche, P.C., Juni, P., Moher, D., Oxman, A.D. & Sterne, J.A.C. The Cochrane Collaboration's tool for assessing risk of bias in randomized trials. *The BMJ*.343, d598. https://doi.org/10.1136/bmj.d5928.
27. Jabbour, M., Newton, AS., Johnson, D. & Curran, JA. (2018). Struggling for a feasible tool – the process of implementing a clinical pathway in intensive care: a grounded theory study. BMC *health services research*, 18(1):831. https://doi:10.1186/s12913-018-3629-1.
28. Khandaker, GM., Gandamaneni, PK., Dibben, CR., Cherukuru, S., Cairns, P. & Ray, MK. (2013). Evaluating care pathways for community psychiatry in England: a qualitative study. Journal Evaluation of Clinical Practice, 19(2): 298–303.
29. Katschnig, H. (2011). Monitoring service utilization of persons with mental disorders – a case for mapping pathways of care. Epidemiol Psychiatr Science. 20(1):7–13.
30. Letton, C., Cheung, C. & Nordin, A. (2013). Does an enhanced recovery integrated care pathway? (ICP) encourage adherence to prescribing guidelines, accelerate postoperative recovery and reduce the length of stay for gynaecological oncology patients? Journal of Obstetr Gynaecol, 33: 296–297.
31. Malterud, K., Volkert, DS. & Guassora, AD. (2016). Sample Size in Qualitative Interview Studies: Guided by Information Power. *Quality Health Research*, https://doi:10.11777/1049732315617444
32. Mater, W. & Ibrahim, R. (2014). Delivering Quality Healthcare Services using Clinical Pathways. *International Journal of Computer Applications* (0975–8887). 95 (1): 114–120.

33. Moher, D., Liberati, A., Tetzlaff, J., Altman, DG. & Bartels, SJ. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. PLOS Medicine, 6(7), e1000097. https://doi.org/10.1371/journal.pmed.1000097.
34. Munn, Z., Peters, MDJ., Stern, C., Tufanaru, C., McArthur, A. & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Medical Research Methodology, 18:143 https://doi.org/10.1186/s12874-018-0611-x
35. Mutschler, C., Lichtenstein, S., Kidd Sean, A. & Davidson, L. (2019). Transition Experiences Following Psychiatric Hospitalization: A systematic Review of the Literature. *Community* Mental *Health Journal* https://doi.org/10.1007/s10597-019-00413-9
36. Neame, MT., Chacko, J., Surace, AE., Sinha, IP. & Hawcutt, DB. (2019). A systematic review of the effects of implementing clinical pathways supported by health information technology. *Journal of the American Medical Informatics Association*, 26(4): 356–363. https://doi: 1093/jamia/ocy176
37. Nimura, J., Tanoue, M. & Nakanishi, M. (2016). Challenges following discharge from acute psychiatric inpatient care in Japan: Patients' perspectives. Journal of Psychiatric and Mental Health *Nursing.*, 23(9–10), 576–584. doi: 10.1111/jpm.12341.
38. Norwegian Ministry of Health and Care Services. The Coordination Reform – proper treatment at the right place and right time [white paper]. Oslo: *Norwegian Ministry of Health and Care Services; Meld. St. 47. (2008–2009). Report to the Storting*.
39. Nasjonal plan for implementering av pakkeforløp for psykisk helse og rus 2018–2020, Helsedirektoratet IS-2734/ *The Norwegian Directorate of Health*
40. Ovretveit, J. (2011). The structure of improvement knowledge - Understanding the conditions for improvement: research to discover which context influences affect improvement success. BMJ. Quality Safe. 20 (Suppl 1): i18-i23. https://doi:10.1136/bmjqs.2010.045955
41. Panella, M., Marchisio, S. & Di, SF. (2003). Reducing clinical variations with clinical pathways: do pathways work? International Quality Health Care, 15: 509–521.
42. Pelto-Piri, V., Engstøm, K. & Engstrøm, I. (2013). Paternalism, autonomy and reciprocity: ethical perspectives in encounters with patients in psychiatric in-patient care. *BMC Medical Ethics*, 14.:49 http:/www.biomedcentral.com/1472-6339/14/49
43. Pelto-Piri, V., Wallsten, T., Hylèn, U., Nikban, I. & Kjellin, K. (2019). Feeling safe or unsafe in psychiatric inpatient care, a hospital-based qualitative interview study with inpatients in
44. Sweeden. International Journal of Mental Health System, 13: 23 https://doi.org/10.1186/s13033-019-0282-y
45. Pound, CM., Gelt, V., Akiki. S, *et al*. (2017). Nurse-driven clinical pathway for inpatient asthma: a randomized controlled trial. Hospital Pediatric, 7: 204–2013.
46. Pham, MT., Rajic, A., Greig, JD., Sargeant, JM., Papadopoulos, A. & McEwen, SA. (2014). A scoping review of scoping reviews: Advancing the approach and enhancing the consistency. *Research Synthesis Methods*, 5(4), 371–385. https://doi.org/10.1002/jrsm.1123.

47. Rutman, L., Klein, EJ. & Brown, JC.(2017). Clinical pathway produces sustained improvement in acute gastroenteritis care. Pediatrics, 140 – 44. https://doi:10.1542/peds.2016-4310.
48. Rotter, T., Kinsman, L., James, EL., Machotta, A., Gothe, H., Willis, J., Snow, P. & Kugler, J (2010). Clinical pathways: effects on professional practice, patient outcomes, length of stay and hospital costs. *Cochrane Database of Systematic Reviews* (3).
49. Sather, EW. (2020). Challenges and Barriers in Clinical Care Pathways: Patient and healthcare professionals experiences in the transitional process between primary to secondary mental health services. *Doctoral thesis* at NTNU, 111.
50. Sather, EW., Iversen, VC., Svindseth, MF., Crawford, P. & Vasset, F. (2019). Patient' perspectives on care pathways and informed shared decision making in the transition between psychiatric hospitalization and the community. Journal of Evaluation Clinical Practice, 1–11. https://doi:10.1111/jep.13206
51. Sather, EW., Svindseth, MF., Crawford, P. & Iversen, VC. (2018).Care Pathways in the transition of patients between district psychiatric hospital centres (DPCs) and community mental heath services. *Health Sci Rep*, e37. https://doi.org/10.1002/hsr2.37.
52. Sather, EW., Svindseth, MF., Sorthe, I., Hagfonn, G. & Iversen, VC. (2016). Barriers and success factors in clinical pathways: transition process between psychiatric inpatient care and community care. European Journal Person Centred Healh, 4 (4):631–640.
53. Schrijvers, G., Hoorn, A. & Huiskes, N. (2012). The care patway:concepts and theory: an intriduction. *International Journal of Integrated Care*. 12: Special Edition Integrated Cate Pathways.Seys, D., Panella, M., Van Helm, R., Sermeus, W., Aeyels, D., Bruyneel, L., Coeckelberghs, E. &
54. Vanhaecht, K. (2019). Care pathways are complex interventions in complex systems:NewEuropean Pathway Associattion Framework. *International Journal of Care Coordination*, (1):5–9. https:/doi:10.117/2053434519839195
55. Seys, D., Bruyneel, L., Kul, S., Van der Veken, L., van Zelm, R., Sermeus, W., Panella, M. & Vanhaecht, K. (2017). Better organized care via care pathways: A multicenter study. Plus ONE (7):e01803398 https://doi.org/10.1371/journal.phone.0180398
56. Shiell, A., Hawe, P. & Gold, L. (2008). Complex interventions or complex systems? Implications for health economic evaluation *BMJ*, 336: 1281–1283
57. SINTEF Digital Helsetjenesteforskning 2020-*01* Pakkeforløp for psykisk helse og rus – fagfolks erfaringer første året (Norway).
58. Starfield, B., Shi, L. & Macinko, J. (2005). Contribution of Primary care to Health Systems and Health. Johns Hopkins University; New York University. The Milbank Quarterly, 83 (3): 457-502.
59. Storm, M., Lunde Husebø, AM., Thomas, EC., Elwyn, G. & Zisman-Ilani, Y. (2019). Coordinating mental health Services for people with Serious Mental Illness: A Scoping Review of Transitions from Psychiatric Hospital to Community. *Administration and Policy in Mental Health Services Research* 46:352–367 https://doi.org/10.1007/s10488-018-00918-7.
60. Steinacher, B., Mausolff, L. & Gusy, B. (2012). The effects of a clinical care pathway for schizophrenia: a before and after study in 114 patients. *Dutsch Arztebl Int*, 109(46): 788 – 94.

61. Teshager, S., Kerebih, H., Hailesilassie, H. & Abera, M. (2020). Pathways to psychiatric care and factors associated with delayed help-seeking among patients with mental illness in Northern Ethiopia: a cross-sectional study. *BMJ Open*, 10: e033928. https://doi:10.1136/bmjopen-2019-033928.
62. Tricco, A.C., Lillie, E, Zarin, W., O`Brien, K., Colquhoun, H., Kastner, M. & Straus,S.E. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC Medical Research Methodology*, 16, 15. https://doi.or/10.1186/s12874-0116-4.
63. Tveiten, S., Haukland. M & Onstad, RF. (2011). The patient's voice – empowerment in a psychiatric context. *Vård i Norden*, 31(3):20 – 4.
64. Valentijn, PP., Schepman, SM., Opheij, W. & Bruijnzeels, MA. (2013). Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. *International Journal Integrated Care*, 13(1). http: //doi.org/10.5334/ijic.886.
65. Vanhaecht, K.„ Van Gerven, E.& Deneckre, S. (2012). The 7-phase method to design, implement and evaluate care pathways. *Intetnational Journal person Centered Med*, 2: 341–351.
66. Vanhaecht, K., Panella, M., van Zelm, R.& Sermeus, W. (2010). An overview of the history and concept of care pathways as complex interventions. *Int J of Care Pathways*, 13:17–123.
67. Vanhaecht, K., Panella, M., Van Selm, R. & Sermeus W. (2009). Is there a future for pathways? Five pieces of the puzzle. *International Journal of Care Pathways*, 13: 82–86 https://doi:10.1258/jicp.2009.009013
68. Vanhaecht, K., De Witte, K. & Sermeus, W. (2007). The inpact of clinical pathways on the organisation care processes. *PhD dissertaion*, Belgium: KU Leuven.
69. Vanhaecht, K., De Witte, K., Depreitere, R. & Sermeus, W. (2006). Clinical pathway audit tools: a systematic review. *Journal of Nurse Management*, 14 (7):529 – 37.
70. Van Houdt, S., Heyrman, J., Vanhaecht, K., Sermeus, W. & De Lepeleire, J. (2013). Care pathways across the primary-hospital care continuum: using the multi-level framework in explaining care coordination. *BMC Health Serv Res*. 13:296.
71. Van Zelm, R (2019). *Doctoral School of Biomedical Sciences* (Belgium) Understanding the implementation of care pathways – Process evaluation of the implementation of an evidence-based care pathway for colorectal cancer surgery in a multicenter setting.
72. Vickers, KS., Ridgeway, JL., Hathawaym JC., Egginton, JS., Kaderlik, AB. & Katzelnick,DJ. (2013). Integration of mental health resources in a primary care setting leads to increased provider satisfaction and patient access. *Gen Hosp Psychiatry*, 35(5):461–467.
73. Viggiano, T., Pincus, H.A.& Crystal, S. (2012). Review: Care transition interventions in mental health. *Curr Open Psychiatry* 2012, 25: 551–558. https://doi:10.1097/YCO.0b013e328358df75
74. Vigod, SN., Kurdyak, PA., Dennis, CL., Leszcz. T., Taylor, VH., Blumberger, DM. & Seitz, DP. 2013. Transitional interventions to reduce early psychiatric readmissions in adults: systematic review. *The British Journal of Psychiatry*, 202: 187 194. http:/doi:10.1192/bjp.bp.112.115030

75. Volpe, U., Mihai, A., Jordanova, V. & Sartorius, N. (2015). The pathways to mental healthcare worldwide: a systematic review. *Curr Open Psychiatry*, 28: 299–306 https://doi:10.1097/YCO.0000000000000164
76. Van Houdt, S., Heyrman, J., Vanhaecht, K., Sermeus, W. & De Lepeleire, J. (2013).Care pathways across the primary-hospital care continuum: using the multi-level framework in explaining care coordination. *BMC Health Service Res*, 13:296.
77. Vugts, M., Liu, H. & Boumans, J. (2018). The need for theory-based evaluation of care coordination initiatives: considerations from the 2017 international conference on realist research, evaluation, and synthesis. *International Journal of care Coordination*, 21: 61–67.
78. Walter, F., Carr, MJ., Mok, PLH., Antonsen, S., Pedersen, CB., Apleby, L. & Webb,RT. (2019). Multiple adverse outcomes following first discharge from inpatient psychiatric care:A national cohort study. *The Lancet Psychiatry*, 6(7), 582–589. https://doi:10.1016/S2215- 0366. (19): 30180–30184.
79. Waters, A., Sands, N., Keppich-Arnold, S. & Henderson, K. (2015). Handover of patient information from the crisis assessment and treatment team to the inpatient psychiatric unit. *Int J Mental Health Nursing*. 24(3): 193–202.
80. Wright, N., Rowley, E., Chopra, A., Gregoriou, K. & Waring, J. (2016). From admission to discharge in mental health services: a qualitative analysis of service user involvement.*Health Expect*, 19(2): 367 – 76.
81. Zisman-Ilani, Y., Roe, D., Elwyn, G., Kupermintz, H., Patya, N., Peleg, I. & Karnieli-Miller,O. 2019. Shared Decision Making for Psychiatric Rehabilitation Services Before Discharge from Psychiatric Hospitals. *Health Communication*, 34 (6): 631–637. https://doi.org/10.1080/10410236.2018.1431018

Tables

Tables 1 to 3 are available in the Supplementary Files section.

Figures

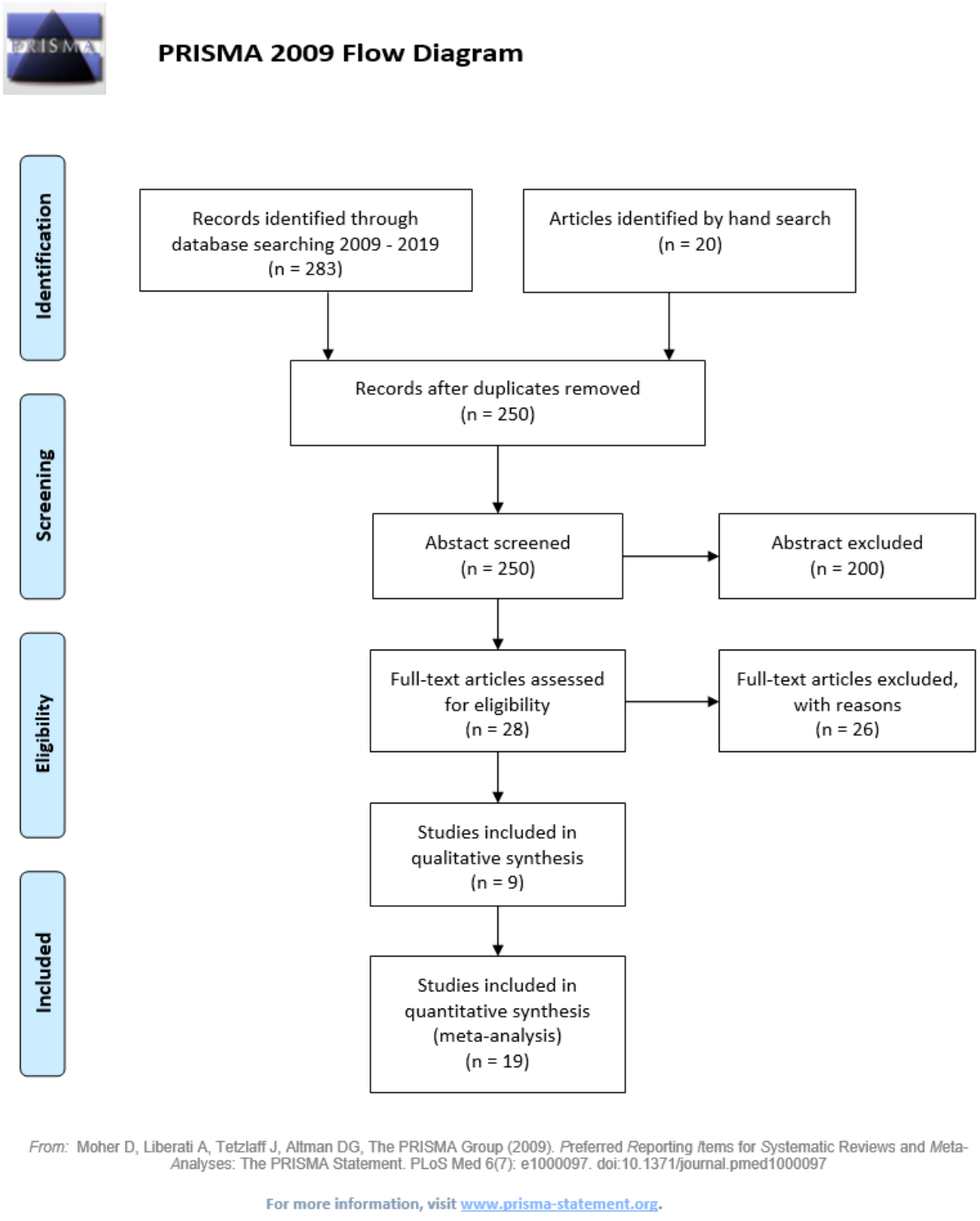

Figure 1

Legend not included with this version.

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