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SYSTEMATIC REVIEW **Open Access**

Recovery-oriented and trauma-informed care for people with mental disorders to promote human rights and quality of mental health care: a scoping review

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Abstract

Background In several countries, the growing emphasis on human rights and the ratification of the Convention on the Rights of Persons with Disabilities (CRPD) have highlighted the need for changes in culture, attitudes and practices of mental health services. New approaches, such as recovery-oriented care (ROC) and trauma-informed care (TIC) emphasize the users' needs and experiences and promote autonomy and human rights.

Aims To provide an overview of the literature on recovery-oriented care (ROC) and trauma-informed care (TIC) and their relevance to the promotion of human rights and quality of mental health care.

Method We conducted a scoping review by searching the following databases: PubMed, Scopus, PsycINFO. We performed a qualitative synthesis of the literature aimed at reviewing: (1) current conceptualisations of recovery in mental health care; (2) recovery-oriented practices in mental health care; (3) current conceptualizations of trauma and TIC in mental health care; (4) trauma-informed practices in mental health care; (5) the relationship between ROC and TIC, with a particular focus on their shared goal of promoting alternatives to coercion, and on trauma-informed and/or recovery oriented alternatives to coercion.

Results According to prevailing conceptual frameworks, ROC and TIC share many underlying principles and should be regarded as complementary. Both approaches affirm the conceptualization of service users as persons, foster their autonomy and rely on their involvement in designing and monitoring mental health services. Both approaches promote human rights.

A wider consensus on conceptual frameworks, tools and methodologies is needed to support ROC and TIC implementation and allow comparison among practices. Recovery-oriented and trauma-informed models of care can contribute to the implementation of non-coercive practices, which show promising results but warrant further empirical study.

Conclusions Recovery-oriented and trauma-informed practices and principles may contribute to the shift towards rights-based mental health care and to the implementation and successful uptake of alternatives to coercion. Local and international work aimed to promote and test these approaches may provide a contribution to improving

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mental health care world-wide. Future research should focus on the outcomes of all involved stakeholders' and include the perspectives of both staff members and service users in different contexts.

Keywords Personal recovery, Clinical recovery, Human rights, Users' empowerment, Coercion

Background

The deinstitutionalisation process implemented in many countries, the growth of service users' and relatives' movements, and the ratification of the Convention on the Rights of Persons with Disabilities (CRPD) have highlighted the need for changes in culture, attitudes and practices of mental health services aimed at delivering treatment and care that upholds the human rights of people with mental health conditions and psychosocial disabilities [1–7]. Mental-health systems in different countries have remodelled their services on the basis of new legislative reforms, ethical codes, guidelines and approaches to promote human rights and quality of mental health care, including the goal of implementing and promoting alternatives to coercion [8–11]. Coercive practices have a negative impact on the therapeutic relationship, create distrust towards mental health services, may have long-lasting traumatic consequences on both people with lived experience (PWLE) of mental disorders and staff members who witness or participate in their execution [12–14], and may result in death [15]. A review of the effects of seclusion and restraint, for instance, estimated a 25% to 47% incidence of post-traumatic stress disorder following these interventions [16]. Individuals with a previous history of trauma are particularly vulnerable to coercion, as past trauma increases the risk of being subject to coercive measures, which can be experienced as re-traumatising and induce revival of previous traumas [16].

Notwithstanding this evidence, coercive measures are still overused worldwide [17–19] and the great heterogeneity in reported use of coercive measures in different countries suggests that its reduction requires systemic changes, including cultural and organisational changes [17]. In a recent discussion paper on the topic, the World Psychiatric Association (WPA) Working Group on 'Supporting and Implementing Alternatives to Coercion in Mental Health Care' described two prominent approaches which promote the quality of mental health care and the implementation of alternatives to coercive practices, i.e., 'recovery-oriented' and 'trauma-informed' services [19]. Recovery-oriented care (ROC) is centred on supporting individuals in the process of recovery, i.e., the attainment of a fulfilling, satisfying, and meaningful life, regardless of the persistence of symptoms. It places a strong emphasis on promoting self-determination and person-centred models of care [19]. Trauma-informed care (TIC) emphasizes the role of trauma in mental health and aims to provide services that are sensitive to a person's past life circumstances and that promote safety, empowerment and recovery from trauma [19]. The two approaches share overarching principles, and both put a strong emphasis on the need to implement alternatives to coercion. Indeed, as emphasised by the WPA Working Group, ROC aims to avoid any intervention that is 'done to' people and to promote self-determination and participation of PWLE. TIC emphasises the need for attention towards the influence of previous traumatic experiences on the provider-user dynamics, offers a range of practices aimed to prevent interactions or events that could be traumatic or re-traumatising. In recent years, numerous conceptualizations and models of ROC and TIC have emerged, reflecting the evolving nature of these frameworks. In the present paper we review the existing conceptualisations, guidelines and evidence regarding these two approaches, with the aim of highlighting their complementarity as well as their role for the implementation of alternatives to coercion in mental health care.

Methods

An initial scan of the current literature was conducted to identify journal articles, books and grey literature (such as reports, working papers, government and international organisations documents) on recovery and recovery-oriented care, trauma-informed care, coercion and human rights in mental health care. Numerous search strings in multiple combinations were used in keyword fields, or abstract and title fields (where available in each database). The search strings used the terms 'recovery-oriented' OR 'trauma-informed', combined with (using 'AND') combinations of the following: mental- (health, illness); mental, psychiatr*, coerci*, seclusi*, restrict*; involuntary, compuls*.

The following research databases were used: PubMed (including MEDLINE, life science journals and online books), Scopus and PsychINFO. This search was complemented by a manual search of reference lists, guidelines, and manuals. Two authors (A.M. and N.S.) independently screened records for potential inclusion by titles, then by abstract and full-text.

After completing the initial scan of the literature, we developed specific research goals, which were to provide an overview of: (1) current conceptualisations of recovery in mental health care; (2) recovery-oriented practices in mental health care; (3) current conceptualizations of trauma and TIC in mental health care; (4) trauma-informed practices in mental health care; (5) the relationship between ROC and TIC, with a particular focus on their shared goal of promoting alternatives to coercion and on trauma-informed and/or recovery oriented alternatives to coercion.

To select articles relevant to these research goals, a combination of purposeful sampling strategies was applied following the method developed by Benoot, Hannes and Bilsen [20]. According to this method, the literature sampling prioritises information-rich sources to highlight key concepts, emerging patterns and current gaps, rather than focusing on an exhaustive screening of all potentially relevant contributions. Additionally, the flexible nature of purposeful sampling allows an iterative refinement of the search focus to explore new directions and include additional studies based on both emerging findings as well as on both research findings and lived experience. We included studies dealing with the following themes: (a) conceptualisations of recovery in mental health care; (b) conceptualizations and/or guidelines and/or empirical evidence concerning recovery-oriented care in mental health care; (c) conceptualizations and/or guidelines and/or empirical evidence concerning trauma-informed care in mental health care, and (d) guidelines and empirical evidence of programs aimed to implement trauma-informed and/or recovery-oriented alternatives to coercion. Peer-reviewed and full-text articles were preferred; additionally, systematic reviews and meta-analyses on the subject were preferred to individual studies. After removing duplicates, a total of 4932 literature results were retrieved. We excluded the studies that did not focus on mental health care, i.e., did not include the terms 'mental health care', 'mental illness', 'mental disorder', 'psychosocial disability', 'psychiatric disorder', 'psychological disorder', 'psychiatry'. We also excluded reports or working papers not relevant to main topics and selected conceptualisations/guidelines from the most relevant associations or groups. Finally, a total of 133 articles was included in the qualitative synthesis. The scoping review reporting was conducted following the Preferred Reporting Items for Systematic reviews and Meta-Analyses—extension for Scoping Reviews guidelines [21] (PRISMA-ScR; Supplementary Material 1). We did not perform a systematic quality appraisal of included studies. In fact, according to Pham et al. [22], scoping reviews should include all relevant studies and present a comprehensive overview of the existing literature on the topic. We extensively discuss limitations of and gaps in the retrieved evidence in the text.

Results

In this section, the paragraphs are numbered from 3.1 to 3.5, according to the goals of present scoping review reported in the Methods section.

Conceptualisations of recovery in mental health care

The concept of recovery

Since the 1960's, the perception of mental illnesses as degenerative conditions without hope of recovery started being challenged by evidence [23–25]. This evidence, together with the deinstitutionalisation process implemented in different countries, favoured a reconceptualization of mental health care objectives, no longer limited to reducing symptoms and preventing relapses but aiming at promoting the achievement of a meaningful life for each user, i.e. oriented towards recovery [26, 27].

However, while many guidelines and policies refer to recovery as the primary goal of care pathways, this concept is still evolving, and different definitions have been proposed during the years. At present, these definitions have been divided into two categories, namely clinical or objective recovery and personal or subjective recovery [27].

Clinical or objective recovery can be defined as the remission of clinical symptoms (i.e., the presence of mild severity symptoms, not interfering with person's participation in real-life activities), together with a satisfactory level of functioning in main domains of real-life, such as interpersonal relationships, work, school, household etc. [28]. Clinical recovery can be assessed by service providers through standardised scales and operational criteria. Regarding schizophrenia spectrum disorders, for instance, Jääskeläinen and colleagues developed the following criteria: a) clinical recovery (e.g., no relapse or hospitalisation in the previous five years); b) social/functional recovery (as measured through assessment scales such as the Global Assessment of Functioning scale); c) duration of improvements in at least one of the clinical or social outcomes for at least two consecutive years; d) currently at most mild symptoms (e.g., a score of ≤ 2 points in each item of the Positive and Negative Syndrome Scale (PANSS)) [29]. However, what is measured in standardised scales may not be what each person considers as most relevant to their lives. Alternatively, clinical recovery might be conceptualised as a process or journey in which the person builds up their life, despite the persistence of some signs or symptoms of the mental disorder and/or the persisting need for treatment [30, 31].

The concept of personal or subjective recovery emerged in the late 80 s through the scientific debate inspired by the personal accounts and advocacy efforts of individuals living with a mental illness diagnosis [32–35]. These contributions underscored the negative impact of psychiatric diagnoses on different subjective domains. For instance, persons with lived experience of mental health conditions described a sense of loss of personal meaning, as receiving a psychiatric diagnosis affected their sense of identity and purpose in their lives [36, 37]. Many reports also focused on the sense of hope despite the prognosis, which was regarded as crucial for the recovery process [36–38]. On this topic, while many persons confirmed the importance of mental health care providers in their recovery process, some felt that providers were pessimistic regarding the possibility of a return to a fully lived life [37, 39]. Personal accounts show a vast heterogeneity of reported experiences, particularly regarding the different goals, priorities and attitudes of each individual [37]. Over the years, different definitions of personal recovery were proposed [31]. An example is represented by Retta Andresen's definition, in which personal recovery is regarded as '*the establishment of a fulfilling, meaningful life and a positive sense of identity founded on hopefulness and self-determination'* [40]. In other definitions personal recovery is regarded as a process or a journey. In the definition proposed by the United States Substance Abuse and Mental Health Services Administration (SAMHSA), for instance, '*Mental health recovery is a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potential*' [41]. In the definition by W. A. Anthony (1993), personal recovery is defined as '*A deeply personal, unique process of changing one's attitudes, values, feelings, goals, skills and roles. It is a way of living a satisfying, hopeful and contributing life even with limitations caused by the illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness*' [42]. This definition highlights some important features of personal recovery, in particular a) the subjective nature of personal recovery, which includes, but is not limited to, objectively assessed 'skills and roles', and b) *the development of new meaning and purpose in one's life.*

Other definitions of personal recovery rely on the concept of citizenship and have led to a citizenship-oriented care model [43]. Rowe defined citizenship as '*the person's strong connection to the 5 Rs, i.e.,* ***r****ights,* ***r****esponsibilities,* ***r****oles,* ***r****esources and* ***r****elationships that a democratic society makes available to its members through public and social institutions, voluntary organizations, such as churches and neighborhood organizations, social networks and everyday social interactions. Further, a sense of belonging in one's community and society both supports and is supported by a strong connection to the 5 Rs. This sense of belonging must be validated by others' recognition of one's valued membership in society*' [44]. The advantage of such a definition, according to its proponents, lies in the attempt to counterbalance the argued over-emphasis on the individual nature of recovery and focuses on the relational, social, economic, cultural and political environment in which personal recovery takes place and on the responsibilities of communities to promote it [45, 46]. Citizenship-oriented care approaches highlight the need to facilitate the access to services and aids, and remove the obstacles that prevent people from fully participating in their communities [47]. Hence, these conceptualisations highlight the importance of parallel support to individual recovery and community change based on the principles of social and economic equity as well as on the respect of the human rights of people with disabilities.

Stage-based and process-based models of personal recovery

Many scholars attempted to identify the phases of the personal recovery process [27]. Andresen and colleagues proposed a stage-based model comprising five sequential phases, while Young and Ensing outlined a three-phase model of recovery [33, 40] (Table 1). Limitations of this model include reliance on the definition of personal recovery as an outcome, failure to consider the now well-established non-linear nature of personal recovery and to embrace difficulties and setbacks that persons may face.

Alternatively, the Recovery Advisory Group proposed a non-linear recovery model (the Recovery Advisory Group Recovery Model—RAGRM), in which each stage is connected to the others in a bi-directional manner and the final stage can be achieved without necessarily moving through all the steps [48] (Fig. 1). The model identifies six phases and focuses on the non-linear and recursive nature of recovery, in which both internal and external factors play a role.

Stage-based models emphasise the progressive nature of recovery and aim to identify different phases that could benefit from specific interventions [49].

Other models (Table 2) focus on the different domains that compose the personal recovery process [27]. Leamy and colleagues, through a systematic analysis of different theoretical models, identified five domains (summarised by the acronym CHIME), each including several subdomains [50]. Lapsley and colleagues also proposed a five-domain model (summarised by the acronym HEART), partially overlapping with the CHIME model [51]. A recent systematic review by San Juan et al. examining the perspectives of both service users and informal caregivers, found that both groups particularly prioritised the importance of financial independence and proposed a four-domain model (summarised by the acronym SPICE) [52]. Similarly, Klevan et al., in a five-factor model including previous reports and experiences of PWLE, highlighted the

Table 1 Staging models of personal recovery

Andresen et al. staging model of personal recovery [40]	
Moratorium	A time of withdrawal characterized by a profound sense of loss and hopelessness
Awareness	Realizing that not all is lost, and that a fulfilling life is possible
Preparation	Taking stock of strengths and weaknesses regarding recovery and starting to work on developing recovery skills
Rebuilding	Actively working towards a positive identity, setting meaningful goals, and taking control of one's life
Growth	Living a full and meaningful life, characterized by self-management of the illness, resilience, and positive sense of self
Young and Ensing's staging model of personal recovery [33]	
Overcoming 'stuckness'	
Discovering and fostering self-empowerment, learning and self-redefinition, and return to basic functioning	
Striving to attain overall wellbeing and striving to reach new potentials	
Recovery Advisory Group model [48]	
Anguish ↕	
Awakening ↕	
Insight ↕	
Action plan ↕	
Determination to be well ↕	
Wellbeing, Recovery, Empowerment	

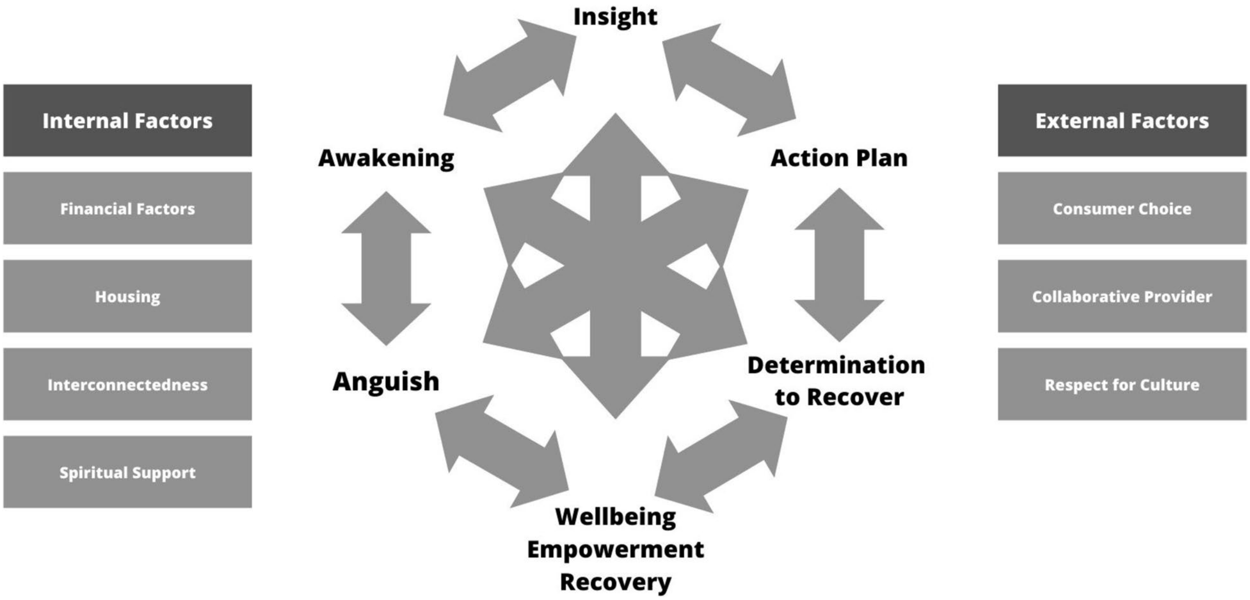

Fig. 1 Recovery Advisory Group Recovery Model [48]. Modified from Olmos-Gallo PA, DeRoche K, Richey C [Online]. The Recovery Measurement Tool: Preliminary analysis of an instrument to measure Recovery Available at: https://www.wellpower.org/wp-content/uploads/2016/01/RAGRM-final.pdf (Accessed: 5 June 2023). According to the Model, which was developed through a discussion between advocates with lived experience of mental health conditions, the recovery process may start from the 'Anguish' phase and should aim to 'Wellbeing, Empowerment and Recovery'. Every stage is connected to all others in a bi-directional manner and individuals may achieve recovery without necessarily moving through each phase. The process is described as influenced by a) internal factors, which refer to the resources and obstacles pertaining to the single individual and their social network and support; b) external factors, pertaining to the services hindering or facilitating recovery by fostering choice and collaboration as well as respect and awareness for the individual's culture

Table 2 Process/domain- based models of personal recovery

CHIME model [50]	
Connectedness	Peer support and support groups, relationships, support from others, being part of the community
Hope and optimism about the future	Belief in possibility of recovery, motivation to change, hope-inspiring relationships, positive thinking and valuing success, having dreams and aspirations
Identity	Dimensions of identity, rebuilding/redefining positive sense of identity, overcoming stigma
Meaning in life	Meaning of mental illness experiences, spirituality, quality of life, meaningful life and social roles and goals, rebuilding life
Empowerment	Personal responsibility, control over life, focusing on strengths
HEART model [51]	
Hope	
Esteem (self-esteem)	
Agency	
Relationships	
Transitions in identity (comprising leaving behind the identity defined by the illness)	
SPICE Model [52]	
Social recovery	
Prosperity (economical, political and legal recovery)	
Individual recovery	
Clinical recovery experience	
Meta-synthesis by Klevan et al. [53, 54]	
Being normal	Participation in normal settings and contexts in the community and in everyday family life
Respecting and accepting oneself	Moving beyond diagnosis, gaining self-acceptance
Being in control	Regaining a sense of mastery
Recovery as intentional	Intentional engaging in the recovery process
Recovery as material and social	Engaging in social and occupational activities, being a citizen, accessing housing and financial resources

importance of financial, housing and social resources [53]. The group additionally defined recovery as a stepwise, cyclical, and continuous process, involving all aspects of one's life including every day, ordinary life experiences and made possible by access to resources, supportive relationships and environments [54].

These models are not necessarily alternative to the staging ones. The CHIME framework, for instance, comprises a staging system as well [51]. Models including both domains and stages may embrace the diversity of people with mental illnesses more flexibly and may support personalised care better.

In addition to the described models, many studies attempted to model the recovery process of specific populations, such as people with psychotic disorders, personality disorders, eating disorders, substance abuse disorders, dual diagnosis, and forensic mental health populations [53, 55–59]. On this subject, however, other models opted for a transdiagnostic approach, as they were aimed to put less emphasis on diagnoses [60].

Relationship between clinical and personal recovery

Despite the described differences between the constructs of personal/subjective recovery and clinical/objective recovery, many researchers have pointed out that these two perspectives should be viewed as complementary rather than alternative and that both should be taken into account to provide appropriate care [61–64]. To provide an integrated framework, some studies investigated the relationship between the two approaches and among the involved factors.

Regarding schizophrenia spectrum disorders, for example, a 2018 meta-analysis reported a small to medium negative correlation between symptom severity and the personal recovery domains 'hope' and 'empowerment' [65]. In addition, both affective and positive symptoms were found to be negatively correlated with personal recovery domains, but affective symptom severity showed a greater negative correlation with personal recovery scores than positive symptoms did [65]. Regarding the relationship between functioning and hope, the review also reported a small but significant positive association between the two parameters, and a small positive association between general functioning and personal recovery outcomes [65].

A study involving 318 individuals diagnosed with a psychotic disorder analysed the relationship between personal recovery and both self-reported and clinician-assessed clinical recovery [66]. The study found that personal recovery was positively associated with clinical recovery, both self-reported and as rated by clinicians. When considering individual domains of self-reported clinical recovery, depressive symptoms, problems with relationships, and suicidal/self-harm thoughts were correlated with lower personal recovery. In contrast, when considering individual domains of clinical recovery as rated by clinicians, problems with relationships were correlated with lower personal recovery scores, but depressive symptoms or suicidal/self-harm thoughts were not. A recent study on 356 adults with schizophrenia conducted a serial mediation model analysis to study the relationship between clinical recovery, personal recovery, quality of life and disability [67]. The study reported a significant direct effect of clinical recovery on personal recovery; the effect, however, was no longer significant when disability and quality of life were added as mediators, with quality of life showing the greatest mediation effect.

A study by the Italian Network for Research on Psychoses examined the relationship between clinical recovery and personal resources such as resilience,[1] recovery style, self-esteem, coping style and service engagement (i.e., propensity of a service user to seek help from a particular service, to collaborate with service procedures, make themselves available for appointments and treatments) [68]. Poor service engagement and coping style were related to greater symptom severity, as well as to poorer social functioning. In addition, greater resilience was associated with better social functioning, but not with lower symptom severity. Poor coping skills and internalized stigma, on the contrary, were related to greater symptom severity, but not to social functioning. A second study by the same research group conducted a cluster analysis on self-reported personal recovery outcomes and identified three clusters [58]. The first and third cluster were characterised by the highest and lowest personal recovery scores, respectively, and included subjects with the best (first cluster) and worst (third cluster) clinical outcomes. The second cluster, characterised by higher levels of depression and internalised stigma, lowest self-esteem and personal strength, but better insight and higher emotional coping, included individuals with intermediate clinical scores.

A recent systematic review investigated the negative effects of self-stigma in serious mental illnesses and confirmed the link between this measure and clinical outcomes such as symptom severity, suicide risk, treatment adherence, work functioning and various parameters pertaining to interpersonal relationships, such as number of social contacts and perceived satisfaction with social interactions [36].

Notwithstanding some inconsistencies, the reviewed literature supports the view of recovery as a multi-dimensional construct and indicates that recovery-oriented practice should address both objective and subjective domains of recovery, which are often beyond what is traditionally done in clinical practice.

Recovery-oriented practices in mental health care

To improve the standards of care, most mental health services, and in particular community-based mental healthcare services, should be redesigned and take a recovery-oriented approach [69, 70].

In recent years, different authors, as well as public authorities, have developed practice guidelines as well as recovery-oriented training programs [71, 72]. Among them, the 'Practice Guidelines for Recovery-oriented Behavioral Health Care' highlight the central role of service users and relatives and describe ROC as a responsive approach, focused on the person, based on the principles of effectiveness, equity, efficiency, and safety, and maximising the use of community support and settings [73]. These guidelines also stress the importance of prevention of mental disorders and promotion of mental health, emphasise the importance of improved access to care by both outreaching to individuals and redesigning services in terms of working hours and locations around the needs and preferences of service users.

Le Boutillier and colleagues conducted a systematic review of the existing guidance documents [72]. They reported heterogeneity among the included papers, which are likely to reflect the complexity of translating ROC theories into practice. In particular, the guidelines differed in the level of service user involvement in research, with most guidelines opting for a shared partnership between providers and users and some attributing either a leading or a consultative role to service users. The authors also developed a practice guidance, organised in four overarching domains: promoting citizenship, organisational commitment, supporting personally

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[1] In the present literature, resilience is a construct differently defined as a personal trait facilitating adaptation in conditions of psychosocial adversity as well as a process of adaptation to difficult life circumstances. In the article under discussion (61), resilience is measured through the Resilience Scale for Adults (RSA) as the sum of both intra- and interpersonal protective factors.

defined recovery and provider-user relationships [72]. They define ROC as centred on the service user as a person, promoting their rights, hope, autonomy, social inclusion and participation in meaningful occupations, always focusing on user's strengths. The review also emphasises the need for mental health services to be recovery-oriented workplaces including, for instance, flexible working hours for service providers, and highlights the need for quality indicators of recovery-oriented services, as well as appropriate workforce planning, including providing the staff with specific training.

In recent years, different research groups and institutions developed training programs to promote a recovery-oriented focus among providers [60, 74–76]. A narrative review examining the existing quantitative evidence of the efficacy of these programs concluded that the high heterogeneity among included studies limits the possibility to draw firm conclusions [77]. Indeed, the authors noted that the included trials greatly differed in terms of applied training program, underlying theoretical system and trial methodology, particularly regarding evaluated outcomes and assessment tools. Furthermore, the review highlighted the dearth of evidence on service users' perspectives, as only two trials evaluated the efficacy of the training programs from the point of view of PWLE of mental health conditions.

In addition, among the seventeen included trials, only seven conducted follow-up evaluations, and only four collected data up to one year after intervention, thus limiting the evidence regarding the long-lasting effects of such programs [77]. The authors stressed the need for future research to focus on the identification of effective strategies to support long-lasting changes of attitudes and practices. Recent evidence stresses the importance of evaluating the effective translation of training into practice from the perspectives of all stakeholders in line with the principle of collaboration [77, 78].

In addition, further research should address the issue of heterogeneity of the current evidence and try to reach a consensus on which methodologies, outcomes and assessment tools should be preferred to test the different theoretical models.

Among the existing recovery-oriented training programs, the QualityRights initiative developed by the World Health Organization (WHO) aims to promote the creation of community based and recovery-oriented services founded on the respect of human rights, as well as the application of best practices and of the principles established by the CRPD [79–81]. The program dedicates one of its five training modules to ROC and provides detailed guidance for the implementation of recovery-oriented approaches. The initiative also provides practitioners with tools, such as training and assessment materials, to promote alternatives to coercion through collaboration with services users, staff members, and families [81]. The program is intended to be applied in the context of both low- and high-income countries and different cultural contexts [82]; implementation trials have been conducted in different geographical contexts [83–87].

While recovery-oriented approaches are intended to have universal applicability, there is still limited research on ROC in the context of low- and middle-income countries (LMIC). A recent review retrieved ten studies relevant to LMIC; all of them focused on the perspectives of service users, providers and family members [88]. The review highlighted the importance given to participation in spiritual and religious practices, described as both an indicator of recovery and a facilitating factor. The review also reported an emphasis given to social relationships and cohesion with the community. ROC is founded on the involvement of persons with lived experience of mental health conditions, as well as their family members and informal caregivers, in all aspects of the recovery process and aims to support relationships and communities that foster recovery and hope. The systematic review that proposed the SPICE framework concluded that the evidence on the perspectives and roles of family members is still sparse, and more research is needed to further explore their contribution to the recovery process [52]. In particular, the review stressed the need to test and implement recovery-informed training interventions for family members and informal caregivers [52].

Several studies have investigated the efficacy of peer support interventions delivered by PWLE either as service users or carers [89–91].

A 2024 umbrella review reported on the findings of 35 systematic reviews for a total of 426 individual studies on the implementation, effectiveness and experiences of peer support interventions [89]. The authors concluded that while inconsistent evidence supported the efficacy of peer support on clinical outcomes, more consistent results indicated that these may improve personal recovery outcomes such as self-efficacy, self-stigma and stigma-related stress [89]. The study also included reviews studying facilitators and barriers to the effective implementation of peer support services, and stressed the importance of adequate training and supervision for peer support workers, leadership and organisational commitment towards the involvement of PWLE and a wider recovery-oriented reform of mental healthcare services [89].

Different institutions, mainly in high-income countries promoted, often in partnership with PWLE, the reorganisation of community-based mental health services inspired by the principles of recovery and collaboration

[92], such as the 'Opening Doors to Recovery' model [93] and recovery-oriented 'Assertive Community Treatment' approaches [94, 95]. The 'Opening Doors to Recovery' is a community-based recovery support program based on interdisciplinary case management teams comprising PWLE, family members, and professional case managers [93]. The program was recently tested in a randomised controlled study, which reported fewer days of hospitalisation and better scores in self-reported recovery- and housing-related variables for individuals who received recovery support case management in comparison with the standard care group [96]. The two groups, however, did not differ in relation to the total number of hospitalisations [96]. Several studies focused on the identification of barriers to the implementation of recovery-oriented practices based on both providers' and service users' perspectives, and highlighted the need for implementing intersectoral coordination as well as a collaborative attitude between providers of different services and institutions [97, 98]. In fact, providers often reported as obstacles the lack of a shared communication system and the low frequency of interactions between sectors, which complicated the retrieval of information and the definition of a shared recovery plan. Indeed, service users often reported that different professionals did not always agree on future directions. In addition, several studies have proposed tools to evaluate the service providers' orientation towards the users' recovery [99]. Researchers mostly focused on developing scales for the assessment of adherence to guidelines on specific interventions or quantitative scales to measure the personal recovery process [100–103].

In the absence of gold-standard measures for the assessment of both personal recovery and mental health services orientation towards recovery, available assessment tools include highly heterogeneous parameters and rely on different conceptualisations [99, 100]. For self-reported personal recovery, for instance, a 2019 review of 29 assessment tools reported that the most frequently considered area, i.e., symptom management, was assessed by twelve scales only, and the second most recurrent domain, i.e., hope, was assessed by eleven scales [100]. For the assessment of mental health services' orientation towards recovery, a 2023 review retrieved fourteen scales and similarly underscored the lack of consensus regarding the conceptual framework [99]. While measuring personal recovery through standardised scales may seem inherently incompatible with the interpretation of recovery as a deeply personal and subjective process, the development of quantitative tools is a necessary step for the evaluation of service and care plans' effectiveness, and hence for the betterment of mental health services.

Further research may improve the level of consensus on the recovery model concept, and lead to the identification of shared and validated assessment tools.

Conceptualisations of Trauma and TIC in mental health care

The definition of trauma has been debated in the psychiatric field and has been through significant evolutions [104]. In the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (DSM -5) trauma is addressed in relation to the diagnosis of post-traumatic stress disorders and defined as '*exposure to actual or threatened death, serious injury, or sexual violence*' [105, 106]. The Substance Abuse Mental Health Services Agency (SAMHSA), instead, adopts a broader definition, in which trauma is the result of '*…an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being*' [107]. Similarly, Bargeman and colleagues propose the following definition: '*When an event, or series of events, overwhelm an individual's capacity to psychologically self-regulate and can negatively affect the individual's internal well-being, inter-personal relationships, and functioning in society.*' [108].

Notwithstanding the influence of the different definitions on estimates of the prevalence of traumatic experiences, there is no doubt that traumatic events are highly prevalent in the general population [109, 110].

A history of trauma has been shown to have potentially a huge impact on survivors' lives; adverse childhood experiences, for instance, have been linked to a higher risk of developing both physical and mental health conditions and shortening quality-adjusted life expectancy [111–114].

Regarding mental health, a history of trauma is known to influence many outcomes. In fact, trauma exposure has been associated with early onset, severe symptoms, unfavourable illness course and higher suicide rates [115–117]. In addition, prior traumatic events are also significantly associated with physical diseases, as individuals with a history of trauma have been found to have higher odds ratios for various physical conditions compared with non-traumatised participants, despite statistical adjustments for sociodemographic variables [118].

Furthermore, trauma may affect subsequent generations through epigenetic modifications, psychological and relational effects as well as societal and cultural influences [119–121]. Intergenerational trauma has been linked to higher vulnerability to post-traumatic stress disorder, anxiety and depression, impairment of social functioning but also positive effects such as stronger resilience [122]. Of course, the impact of trauma, both on affected individuals as well as on their descendants depends on many factors, including the severity of the trauma, the resilience of the person and their access to health care services [123, 124].

Trauma-informed care (TIC) is defined by Hopper, Bassuk and Olivet as a service delivery approach '*that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment'* [125]. Alternatively, Bargeman and colleagues recently described TIC as '*A bidirectional relationship between the trauma-affected individual (who can be a consumer or provider of services) and a provider of human services (who can also be affected by trauma) within a culture fostering mutual resilience supported by an integrated referral network which allows the bidirectional relationship to occur vertically, within one system of care, and horizontally across other systems of care if needed.*' [108].

The approach has been studied and applied in relation to different medical fields, but particularly in the context of mental health care in view of the clinical relevance of trauma for mental disorders [111, 115–117]. According to its advocates, the rationale of the approach is that appropriate care requires an understanding of the consequences of traumas as well as specific skills for their identification and prevention and for supporting the recovery process. In addition, supporters of this approach stress the need for proper training and vigilance towards service users' histories of trauma, without which mental health services may expose service users to mental health interventions that remind them of past trauma or even re-traumatise them [126].

TIC focuses on the consequences of trauma not only for service users but also for service providers. The constructs of compassion fatigue and of secondary and vicarious trauma were proposed to define the psychological and physical changes and symptoms that service providers can experience when indirectly exposed to trauma through empathetic engagement with a trauma survivor [127]. Compassion fatigue is defined as a state of exhaustion, loss of empathy and reduced satisfaction with work that can result from repeated interactions with traumatised individuals; secondary trauma is a term used to describe a collection of symptoms such as intrusive thoughts, insomnia, irritability and fatigue following indirect exposure to the survivors' traumatic material; while vicarious trauma is more often used to refer to long-lasting changes in cognitive schemes, such as the personal conception of reality (e.g., the dangerousness of a specific situation) through indirect exposure to traumas. These conditions not only affect staff members' physical and mental health, but can significantly influence the functioning and quality of the provided service as they can result in absenteeism, high job turnover, impaired decision-making and diminished empathy towards service users [128, 129].

The largest impetus for the theoretical elaboration and practical implementation of a trauma-informed approach was provided by SAMHSA's treatment improvement protocol [130]. In the document, the governmental agency defines TIC as founded on three pillars: 1) realising the prevalence of trauma; 2) recognising how trauma affects all individuals involved with the considered service, including providers; 3) responding by putting this knowledge into practice. SAMHSA elaborates on these three pillars to assert sixteen principles that constitute the agency's conceptual framework for trauma-informed practice. (Table 3).

Regarding trauma awareness, the protocol states the importance of modelling every interaction with the service users and family members assuming that they may have experienced a trauma. This assumption will contribute to minimising the risk of replicating prior trauma dynamics in the provision of care and will create an environment that is perceived by the service user as both physically and emotionally safe. On this subject, several authors underlined that trauma survivors may avoid receiving medical care, and especially specific procedures and interactions with providers, because of the discomfort it may involve [131–133].

Table 3 The 16 principles of SAMHSA's treatment improvement protocol [130]

1	Promote trauma awareness and understanding
2	Recognize that trauma-related symptoms and behaviors originate from adapting to traumatic experiences
3	View trauma in the context of individuals' environments
4	Minimize the risk of re-traumatization or replicating prior trauma dynamics
5	Create a safe environment
6	Identify recovery from trauma as a primary goal
7	Support control, choice, and autonomy
8	Create collaborative relationships and participation opportunities
9	Familiarize the client with trauma-informed services
10	Incorporate universal routine screenings for trauma
11	View trauma through a sociocultural lens
12	Use a strengths-focused perspective: promote resilience
13	Foster trauma-resistant skills
14	Demonstrate organizational and administrative commitment to TIC
15	Develop strategies to address secondary trauma and promote self-care
16	Provide hope by emphasizing that recovery is possible

TIC approaches are also centred on the creation of trauma-aware mental health services with the aim of preventing events that could be traumatic or re-traumatising for any involved individual, including service providers. Regarding compassion fatigue and secondary/vicarious trauma, several modifiable organisational factors such as poor managerial support, excessive workload intensity and inadequate rest time between shifts can increase the risk of developing these conditions [134, 135]. In addition, TIC focuses on the importance of acquiring a trauma-focused perspective, as the identification of the individual's trauma can give a deeper understanding of their symptoms and of their adaptive and coping function. The SAMHSA protocol proposes a social-ecological model in which the trauma is examined in light of the interpersonal, social, cultural and developmental factors that concurred to determine its severity and consequences.

Recovery from the trauma is the primary goal of trauma-informed care; it should be pursued by establishing a collaborative relationship that maximises service users' autonomy and choice. Recent conceptualisations of this subject stress the importance of service users' collaboration not only in the context of the provider-user relationship but also in all organisational levels as well as in the training of mental health workers. As to the intervention strategies, a strength-based approach is recommended; it should focus on service user's resources rather than on symptoms, and promote the development of self-care skills, coping strategies and supportive relational networks to foster a sense of resourcefulness, competence and hope. In conclusion, TIC is founded on key ethical principles [136]. Through its focus on service users' personal history of trauma, the approach highlights the importance of acknowledging subjective aspects and individual characteristics and preferences, and personalising each intervention according to the person's experience and needs. By centring interventions on a person's strengths, TIC aims to promote empowerment and self-determination, while minimising the risk of re-traumatisation.

Trauma-Informed practices in mental health care

The available literature offers different examples of TIC implementation programs for different settings [137]. In a 2024 scoping review encompassing 157 studies on the implementation of TIC practices in different settings and populations, significant heterogeneity was observed regarding theoretical frameworks, outcomes, measures, and interventions [137]. Although it was adopted by less than half of the included studies, SAMHSA was the most commonly utilised theoretical framework [107]. In terms of implementation, educational programs predominated, but significantly varied in curricula, outcomes assessed, and assessment tools employed [137]. In relation to mental health care settings, a 2024 review identified 23 studies implementing TIC programs across inpatient acute, emergency, and residential settings [138]. In a systematic review of trauma-informed interventions in youth psychiatric inpatient and residential settings, Bryson and colleagues developed an implementation program based on five factors [139] (Table 4). The review highlights the need for organisational leaders to promote TIC implementation as well as ongoing staff training, coaching and supervision. In addition, the review stresses the importance of both cultural and environmental changes, encouraging for example the creation of treatment spaces that evoke a sense of safety.

Bargeman and colleagues, in the 2022 systematic review that included the aforementioned definition of trauma addressing the implementation of TIC, proposed a conceptual framework centred on the definition of a *vertical* TIC and a *horizontal* TIC [108]. *Vertical* TIC is operationalised on three levels: 1) Programs/services (routine trauma screening/assessment, protocol with supporting infrastructure for positive screening and staff support for secondary trauma); 2) Organisation (trauma-informed policies, agency walk-throughs and trauma-consultant/leadership team), and 3) System (sustainable funding, accessible and adequate training, distinct and defined provider roles, support from leadership).

Horizontal TIC, instead, refers to intersectoral collaboration across different sectors, based on the use of a common 'trauma language' and on specific training. For service users the goals of TIC include the reduction in trauma symptoms, the improvement of their

Table 4 Keys to successful implementation of TIC in youth settings [139]

1	Senior leaders prioritizing trauma informed care
2	Supporting staff by delivering advanced training on trauma and providing supervision, coaching, and debriefing of seclusions, restraints, and patient/staff injuries
3	Listening to patients and families about their experiences, needs, and priorities in the treatment process
4	Reviewing data and outcome indicators to motivate continued improvement
5	Aligning policy & practice with trauma informed care

service engagement and the retention in care and/or rehabilitation programs. For providers the desirable goals include reduction in fatigue and burnout due to secondary trauma, reduction in injuries and staff turnover, and improved morale and collaboration among services within and across sectors. For both service users and service providers, improvement in overall mental health and well-being, mutual respect and an enhanced sense of safety are pursued as goals.

TIC commonly involves routine screening for trauma. On this subject, the SAMHSA treatment improvement protocol suggests the application of self-administered questionnaires rather than in-person interviews and offers a range of validated tools in its appendix [130]. On the acceptability of such tools, however, the scientific literature reports mixed results, as some service users do not feel comfortable enough to disclose their traumas through a self-administered standardised form, while others prefer this method to an in-person discussion with a health care provider [140]. In addition, some providers argued that standardised screening outside the context of a therapeutic relationship based on trust may even inhibit disclosure.

TIC requires staff training and organisational commitment. As to the efficacy of staff training interventions, however, a systematic review including 23 studies that evaluated organisational interventions involving training programs highlighted serious limitations of the current evidence [141]. In particular, the majority of the included studies utilised single-arm pre-test/post-test designs with short follow-up intervals and showed substantial heterogeneity in terms of the applied evaluation tools. Additionally, only a minority of the reviewed studies included clinical parameters or service users' perspectives as outcomes. In 2022, a scoping review analysed 27 studies reporting various interventions addressing vicarious trauma, including psychoeducation, mindfulness, recreational activities among others [142]. It concluded that the current literature offers promising interventions for vicarious trauma but does not allow final conclusions, due to high heterogeneity in terms of considered population, outcome measures, and research designs. Importantly, the authors reported a lack of conceptual clarity regarding vicarious trauma, secondary trauma and compassion fatigue, as these terms were sometimes used as synonyms. Consequently, the authors recommend further research aimed to operationalise the definition of the different trauma-related conditions by empirically clarifying the symptoms that define them.

Consistent with ROC approaches, TIC relies on the involvement of people receiving services, their family members and informal caregivers. The SAMHSA treatment improvement protocol supports the involvement of these groups in all aspects of service design, delivery and evaluation [130]. However, up to now, the literature relevant to the contribution of informal caregivers and family members, and to their perspectives on trauma-informed services, is still scarce.

Bargeman and colleagues identify obstacles to the practical implementation of TIC, such as the absence of consensus regarding its conceptualisation and the lack of proper education and training on the approach [108]. Furthermore, their review found a number of infrastructural barriers, such as shortage of resources, absence of established referral networks between sectors and lack of validated assessment tools. Other identified barriers to TIC include the lack of culturally and linguistically appropriate services and the absence of clear referral pathways, as many physicians express uncertainty about identifying the appropriate providers for patients with trauma histories [143]. Overall, this evidence highlights the need for system and organisational change to support the successful implementation of TIC [143]. In relation to the use of assessment tools for the evaluation of TIC implementation programs, a systematic review including 49 measures reported high heterogeneity in the applied operational criteria, explained by a lack of consensus on the definition of trauma-informed services [144]. The authors hence called for a more widely shared conceptual framework and the use of previously validated tools to evaluate developed programs, in order to build a stronger empirical base.

Unfortunately, in spite of the high prevalence of traumatic events exposure in the general population in LMIC countries [109], the reviewed literature shows scarce evidence of the implementation at an organisational and system level of trauma-informed approaches in LMIC. For instance, the aforementioned 2023 systematic review by Saunders and colleagues on TIC approaches in mental healthcare settings retrieved 23 studies, all of which were conducted in high-income countries, with 16 conducted in the United States [138]. Different studies investigated the efficacy of single trauma-informed interventions in LMIC populations show promising results as well as challenges [145–147].

In conclusion, further research is needed to support future implementation of trauma-informed organisational policies, screening programs and interventions for both service users and providers. In particular, further research should be grounded on a more widely shared conceptual framework, stakeholders' outcomes and perspectives and should address how the implementation of trauma-informed services and policies contributes to the recovery process of service users in different contexts and countries.

Relationship between recovery-oriented care, trauma-informed care, and the promotion of alternatives to coercion

Theoretical consistency between ROC and TIC

The current literature offers several examples of interventions that are influenced by both ROC and TIC paradigms [148–151], and different recovery-oriented training programs incorporate TIC principles and theories [152–154]. Among them, the WHO QualityRights initiative, which states, in its training module dedicated to the creation of community-based and recovery-oriented services, that ROC 'involves responding to trauma' and requires the adoption of a trauma-informed approach. However, the current literature lacks a thorough analysis of the theoretical consistency between the two approaches.

Indeed, ROC and TIC share many principles, e.g., the person-centred and strengths-based approach, as well as the focus on autonomy and empowerment, on service users' and informal caregivers' involvement, on recovery and hope, and on the respect of human rights. Both approaches affirm the conceptualisation of service users as persons and tailor services and interventions to their individual needs, preferences and experiences; both focus on acknowledging and developing each person's unique resources, resilience and coping skills, and emphasise the importance of promoting autonomy and fostering empowerment; and both rely on the involvement of service users to shape delivery of mental health services.

SAMHSA, in its TIC guidelines, proposes a conceptualisation of recovery in line with the personal recovery definition: 'Consistent with SAMHSA's definition of recovery, services and supports that are trauma-informed build on the best evidence available and consumer and family engagement, empowerment, and collaboration' [107].

TIC focuses on trauma also in light of its impact on the personal recovery from mental health disorders and substance abuse: 'If individuals engage in mental health and substance abuse treatment without addressing the role that trauma has played in their lives, they are less likely to experience recovery in the long run' [130], and regards trauma-informed services as a necessary first step to initiate the recovery journey.

Importantly, both ROC and TIC models aim at providing human-rights based mental health care at individual and system level and promote the implementation of alternatives to coercion in the provision of mental health care. In the light of their negative impact on the recovery process and of their potential traumatic impact, the current literature on both ROC and TIC provides practitioners with guidance documents, practices and tools to avoid the use of coercive practices. The 'Practice Guidelines for Recovery-oriented Behavioral Health Care', for instance, state that recovery-oriented practitioners should 'relentlessly try different ways of engaging and persuading individuals in ways which respect their ability to make choices on their own behalf' before appealing to formal coercive measures, and should limit the use of these measures to circumstances of imminent risk of harm to self or others [73]. Unless formally determined otherwise, individuals should be entitled to make their own decisions, as practitioners should respect their 'right to fail' and the 'dignity of risk'. In addition, the guidelines stress the importance of acquiring sensitivity to the thin line 'between persuasion and coercion' and 'between assertive outreach versus potential harassment', and always minding the power differential in the provider-user relationship and how this influences the user's choices. Similarly, the review by Le Boutiller et al. defines ROC as a vision promoting a 'shift from paternalistic mental health practices to practices that support autonomy' and requiring practitioners to 'promote individual preference, self-determination over life, the dignity of risk, and the right to failure' [72]. TIC, on the other hand, focuses on the potentially traumatic effects of coercive measures, emphasises the safety of service users and focuses on how to minimise the risk of trauma and re-traumatisation in provider-user interaction and dynamics. The conceptual frameworks and guidelines developed for TIC offer new strategies for preventing conflicts between staff and service users and for creating environments that are supportive and safe and promote an individual's empowerment and recovery, in line with the principles of ROC [155, 156].

Evidence on recovery-oriented- and trauma-informed-alternatives to coercion

In the present section, we highlight the relationship of ROC and TIC with emerging practices aimed at avoiding coercion. Given the theoretical consistency between the two approaches, it is not always possible to draw a line between recovery-oriented and trauma-informed care when considering their relevance to these practices: many are either inspired by or consistent with both approaches. This is the case in particular for the 'Six Core Strategies' and the 'No Force First' approach, which both include recovery principles as well as trauma-informed tools [138, 148–151].

The "Guide to Reducing Restrictive Practice in Mental Health Services", developed by the UK National Health Services (NHS), is a ROC guidance document based on the "No Force First" approach [148]. The rationale of the approach, originally developed by the U.S. non-profit organisation 'Recovery Innovations, Inc', is that coercive interventions are detrimental to the recovery process and against the recovery principles of self-determination and empowerment [157]. The document offers guidance over the realisation of different interventions, including debriefing techniques after adverse events, nursing handovers focused on recovery and trauma awareness and specific ward criteria to reduce restrictive practices, and provides a range of supporting tools, including the "Six Core Strategies". The implementation of the guidelines has been tested in a mental health and learning disabilities inpatient setting and led to a significant reduction of incidence of physical restraint and adverse events, such as aggressions [158]. However, the lack of a control arm as well as of sociodemographic data linked to the adverse events limits the robustness of the findings [158].

The 'Six Core Strategies' is an approach developed by the US National Association of State Mental Health Program Directors (NASMHPD) founded on the principles of recovery and trauma-informed care which focuses on the role of organisational and managerial commitment to reduce seclusion and restraint [149–151] (Table 5).

In particular, the model promotes the implementation of policies and procedures to create a treatment environment that is unlikely to trigger conflicts; the systematic collection of data to monitor patterns of seclusion/restraint (S/R) use (e.g., working shifts, staff members' involved, demographics of involved service users); employing PWLE as peer support workers to help others assimilate the experience; individualised recovery plans; use of debriefing techniques to conduct a thorough analysis of each coercive intervention and the application of trauma-informed S/R prevention tools, such as universal screening for history of trauma. The strategies have been applied in different settings and current empirical evidence suggests their potential efficacy for the reduction of S/R events [149, 159–161]. A recent review of the literature on strategies applied to reduce S/R events in child and adolescent inpatient settings reported that the Six Core Strategies show promising results compared to other models, but acknowledged the difficulty to compare different approaches due to the heterogeneity of study designs and considered outcomes [149]. According to the authors, the results may be explained by the model's focus on leadership commitment, as well as by its relative simplicity. In one of the included studies, which investigated the efficacy of the Six Core Strategies on this outcome, S/R events decreased by almost 88% over a 10-year period [160]. Another recovery-oriented model, the Weddinger Modell, was tested in a retrospective case-study, which reported a significant reduction of the frequency of restraint events and of the duration of seclusion compared to care as usual [162]. A second retrospective study on the same study population reported no significant differences in forced medication use [163]. The strength of the two studies is however flawed by the retrospective design, the short time frame considered and the risk of selection bias. Hence, despite the promising theoretical premises and preliminary results, the empirical evidence on the model in the current international literature is still sparse, and further data are needed to support its effectiveness, including from the perspective of PWLE, as a systematic review reported the approach did not significantly increase service user treatment satisfaction [164].

Other approaches that are consistent with ROC and TIC include the 'Open Doors' policy and the 'Safewards' model [165, 166]. The 'Open Doors' approach is inspired by the principle of the least restrictive care and aims to foster therapeutic partnerships based on active collaboration and autonomy, empowering the patient by granting freedom of movement. Two observational studies analysing a sample of 314,330 people treated in hospitals with or without locked wards, reported that treatment in a hospital with 'Open Doors' policy was associated with a decreased probability of suicide attempt, aggressive behaviour, coercive measures and absconding [165, 167]. However, both studies received criticism citing design flaws and possible sample bias, as service users at risk of adverse events may have been more frequently placed in locked wards [168, 169]. A longitudinal observational study examining the long-term effects of the introduction of an 'open doors' policy, reported a reduction of both seclusion and forced medication [170]. A more recent prospective study compared two psychiatric wards with an 'open doors' policy intervention (which still permitted doors to be locked after daily meetings assessing the presence of risk of adverse events such as suicidality), with

Table 5 Six core strategies for reducing seclusion and restraint use [149, 150]

1	Leadership towards organizational change
2	Use of data to inform practice, involving the collection and analysis of data at the level of each service
3	Workforce development, based on training programs, coaching and supervision
4	Use of seclusion/coercion prevention tools, including universal trauma assessment and de-escalation techniques
5	Consumer roles in inpatient settings
6	Debriefing techniques, aimed at gaining knowledge about seclusion/coercion events as well as at mitigating the potentially traumatizing effects of such events on staff and consumers

two locked wards in which doors could be opened transitorily at the discretion of the staff, in line with the standard ward policy [171]. Aiming to investigate whether an 'open doors' policy could be effectively applied during compulsory hospitalisations, the study's primary outcome indicator was the number of involuntary treatment days with open doors. It found that intervention wards were open significantly more often during involuntary hospitalisations compared to control wards [171]. The study did not find significant differences between wards regarding adverse events or the use of coercive measures. A study examining the influence of previous hospitalisations in open-doors versus closed-door wards found that individuals previously treated in open-doors policy wards were less likely to undergo coercive measures during further hospitalisation in an open doors setting compared to individuals receiving treatment in wards with a closed-door policy at both stays [172]. The study checked for some of the potential confounding factors, including diagnosis, severity of psychotic symptoms at admission and aggressive behaviours, but the lack of randomised allocation to either open-doors or closed-doors wards represents a potential source of bias, as individuals with an a-priori increased risk for coercive measures because of their clinical condition may have been more often admitted to closed-door settings for safety reasons [172]. The 'Safewards' model is an approach aimed to improve safety and reduce S/R events through the prevention of conflicts in hospital wards [166]. The model was applied in the context of the implementation of recovery-oriented systems of care and aims to reduce conflicts by identifying and intervening on conflict-originating factors pertaining for example to the ward physical environment, to the staff team and to the inpatients. In addition, the model identifies 'flashpoints', i.e., situations from which a conflict may arise and focuses on how staff members can achieve de-escalation [166]. A recent paper on the role of power dynamics between providers and service users and of trauma histories during situations of conflict, proposed a trauma-informed expansion of the model [173]; cultural adaptations of the model were also proposed to address service provision disparities between different ethnic groups [174]. A recent systematic review examining the evidence of the efficacy of the Safewards model in reducing coercive measures reported mixed results, as in four of the eight included studies there was little or no difference in the frequency of coercive practices [175]. A second systematic review found that both staff members and service users reported that the 'Safewards' model improved therapeutic relationships, ward atmosphere, and both service users' and providers' experience of safety [176]; however, the paper stressed that no clear relationship emerged between the implementation of the model and rates of conflict and containment. Similar results emerged from more recent studies. Kernaghan and Hurst reported on the implementation of a program including training the staff on the 'Safewards' model [177] and found no causal relationship between the implementation of the program and the observed reduction in S/R events [177]. A series of barriers to the implementation of the model, including system-level (e.g. current laws, governmental priorities and policies) and organisational-level factors (e.g. managerial commitment) have been recently described and need to be addressed [178]. Other retrieved studies investigated the efficacy of specific components of ROC and TIC approaches to reduce coercive practices, such as peer support [179] or debriefing techniques [180, 181]; the reported data show promising results, but the overall retrieved evidence suggests that the implementation of alternatives to coercion may require wider organisational and system-wide changes to enable individual interventions to produce significant and long-term results [149, 160]. Additionally, several recovery-oriented and trauma-informed interventions tailored to the needs of specific settings have been developed [138], but quantitative evidence on S/R outcomes is still limited to single studies often lacking control arms [138].

In conclusion, both ROC and TIC approaches contributed to the development of practices alternative to coercive ones in mental health care settings. However, further research is needed to guide their implementation and adaptation to different contexts. In particular, more rigorous studies are needed to validate their effectiveness and to allow comparison among different approaches and interventions. As previously noted [182, 183], however, the multi-level interventions, comprising cultural, policy, systemic, and organisational changes on which both ROC and TIC approaches rely, are often difficult to evaluate in formal quantitative studies and cannot be assessed through randomised trials. Additionally, a strict focus on hard outcome measures, such as the reduction in S/R events, may overlook the broader range of coercive practices (e.g. interpersonal leverage or threats) [184] which may not be objectively quantifiable. Therefore, further trials are needed to evaluate interventions in terms of clinical results (e.g. reduction in S/R events) and of perspectives of both staff members and service users.

Conclusions

The present paper provides a comprehensive overview of the current state of knowledge on ROC and TIC as approaches contributing to improve mental health care quality. Even though previous reviews on either ROC or TIC in mental health care exist, to the best of our knowledge, our work is the first providing a comprehensive overview of both approaches with the particular aim of highlighting their complementarity. The reviewed theoretical frameworks and conceptualisations indicate that recovery-oriented and trauma-informed care share many principles: both models promote a person-centred and strengths-based approach, both focus on autonomy and empowerment, promote the collaboration and organisational involvement of individuals and their informal caregivers, focus on hope and recovery, aim at providing human-rights based mental health care at individual and system level, and both require the implementation of alternatives to coercion in the provision of mental health care to promote recovery and avoid re-traumatisation.

Indeed, ROC is founded on the promotion of the right to self-determination and on the effort to maximise for each person the opportunities to exercise autonomy. On this subject, the World Psychiatric Association (WPA) Working Group 'Supporting and Implementing Alternatives to Coercion in Mental Health Care', in a recent position statement on the subject [185, 186], defined the implementation of alternatives to coercion as an 'essential element of the broader transition across the mental health sector toward recovery-oriented systems of care' [185]. Indeed, the Working Group stressed that an orientation towards recovery includes not only the involvement of service users and the respect of their rights, but the realisation of such rights 'through sound pathways of non-coercive care' [19].

However, the comparison of currently proposed recovery-oriented practices as well as assessment tools and training programs is complicated by the adoption of different conceptual frameworks and trial methodologies. Consequently, shared definitions, methodologies and guidelines are required to gather further evidence to support the practical implementation and monitoring of these approaches in countries across the world.

TIC seeks to recognise the role of an individual's trauma history in every healthcare interaction and emphasises the psychological, physical and emotional safety of both providers and PWLE of mental health disorders. It creates a supportive and safe environment that promotes the person's empowerment and recovery, aligning with the principles of ROC. In addition to providing an overview of the shared underlying principles between the two approaches, the present review offers a comprehensive summary of the current evidence of the implementation of ROC and TIC approaches, highlighting current research gaps as well as barriers and facilitating factors. In relation to their practical implementation, successful implementation of ROC and TIC approaches require systemic and cultural changes, as well as organisational commitment at different institutional levels. In relation to current research gaps, the high heterogeneity of theoretical frameworks, and of evaluated outcomes and assessment tools, often hinders comparison of findings and generalizability. Additionally, further research and discussion are necessary for the implementation of culturally and linguistically appropriate services within ROC and TIC frameworks [108, 187]. These adaptations are particularly critical for marginalized and vulnerable populations groups, for whom trauma, discrimination, stigma and systemic inequities play central roles in their recovery journeys [174, 188]. The development and implementation of culturally adapted practices and protocols will be crucial to address each individual's unique needs and to reduce existing disparities in service access [187–189].

Practices combining recovery principles and trauma-informed tools to reduce coercion, such as the Six Core Strategies and the 'No Force First' approach, show promising results but will require further rigorous studies to evaluate their effectiveness, enable comparisons between different interventions, and support their dissemination and adaptation across diverse contexts. In line with this conclusion, the WPA-Lancet Psychiatry Commission on the Future of Psychiatry stated that 'Development of alternatives to compulsion requires research, of which little has been done' [18]; in the same vein, the discussion paper of the WPA Working Group on 'Supporting and Implementing Alternatives to Coercion in Mental Health Care' highlighted the need for more research on such alternative practices, particularly focusing on existing resources, barriers and facilitating factors [19], and informed by the constant input of service users and their informal carers. The question surrounding the feasibility of the elimination of coercive practices, particularly in circumstances of danger or emergency, will need further inquiry and research.

Local and international work to promote and test alternative approaches, facilitated by reconciliation of their conceptual frameworks, may contribute to the shift towards more person-centred and human-rights based models of mental health care world-wide.

Limitations

This scoping review aimed to provide a comprehensive overview of ROC and TIC approaches; however, some limitations should be noted. The first limitation is relevant to the scoping review design, which was necessary given the large and heterogeneous body of literature we aimed to explore. As our work did not involve an exhaustive systematic search strategy, it may have potentially excluded some relevant studies. Furthermore, our work did not involve either a quantitative analysis of the retrieved evidence or a systematic assessment of the quality of included studies, as these were beyond the scope of our review. However, this work might serve as a basis for future quantitative systematic reviews and meta-analyses addressing narrower research questions and evaluating the robustness and quality of the associated evidence. Lastly, the increasing focus on person-centred and human-rights based models of care stimulated several research areas, such as supported decision-making practices and advance directives, which are closely connected to the topics we covered.

Abbreviations

CRPD	Convention on the Rights of Persons with Disabilities
DSM-5	Diagnostic and Statistical Manual of Mental Disorders
LMIC	Low- and middle-income countries
NASMHPD	National Association of State Mental Health Program Directors
NHS	National Health Services
PANSS	Positive and Negative Syndrome Scale
PWLE	People with lived experience
SAMHSA	Substance Abuse and Mental Health Services Administration
S/R	Seclusion/restraint
RAGRM	Recovery Advisory Group Recovery Model
ROC	Recovery-oriented care
TIC	Trauma-informed care
WHO	World Health Organization
WPA	World Psychiatric Association

Supplementary Information

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Authors' contributions

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Data availability

Data availability is not applicable to this article as no new data were created or analysed in this study.

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