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The Promise and Pitfalls of Electronic Health Records and Person-Centered Care Planning

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Abstract

Person-Centered Care Planning is a recovery-oriented practice designed to meet the increasing demand to deliver person-centered care. Despite widespread dissemination efforts to train providers in person-centered care, behavioral health agencies are still struggling to implement person-centered care approaches. One of the barriers is poorly designed electronic health records that are not aligned to reflect the goal of providing individuals with meaningful choices and self-determination. The pitfalls of EHR design include service planning templates that rely on automated formats that are problem-driven and preclude the entry of unique information, whereas a well-designed EHR can become a key strategy for the delivery of person-centered care by having the functionality to reflect individual goals, actions, and natural supports. The promise and pitfalls of EHR design demonstrates the importance of having a treatment planning platform that allows providers to actualize person-centered care.

Introduction

Person-centered care is one of the key aspects of delivering quality health care and has been central to health care reform.[1] In behavioral health systems, person-centered approaches have also been promoted as fundamental to mental health recovery and transformation efforts.[2] A key expression of person-centered care is a care planning process which reflects the preferences, needs, and values of the individual and fully engages them in decision-making. One practice that has applied person-centered care to the care planning process is Person-Centered Care Planning (PCCP), a recovery-oriented practice that seeks to orient

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care to the personal life goals of the individual. Despite widespread dissemination of this practice throughout the USA and a growing evidence base,[3] the field of behavioral health is still struggling with significant barriers to implementation.[4] Many of these barriers stem from difficulties aligning administrative requirements with the goal of providing individuals with meaningful opportunities for choice and self-determination. For example, providers often view strengths-based, person-centered approaches as inconsistent with the clinical documentation requirements and "medical necessity" criteria for various fiscal and regulatory oversight bodies such as managed care organizations and state mental health authorities. These providers express feelings of tension between personal investment in their work—which is often aligned with the principles of person-centered care—and the more bureaucratic demands of their work. This includes, but is not limited to, the perpetuation of electronic health records with poorly designed templates that remain rooted in traditional, problem-focused approaches to care planning.

Electronic health records (EHRs) have been incentivized by policies such as the Health Information Technology for Economic and Clinical Health Act (HITECH Act, Pub.L. 111–115)[5] and the Affordable Care Act (Affordable Care Act (ACA), Pub. L. 111–148).[6] In behavioral health, a 2012 survey found that more than 50% of community mental health agencies utilized EHRs and a 2018 survey found that 90% of certified community behavioral health clinics utilized electronic care plans.[7] Aligned correctly, EHRs can both reflect and promote person-centered care but often this is not the case. Efforts to improve EHR system usability have led to the HL7 EHR system model which sets voluntary standards and functional requirements in medical and behavioral health settings.[8] Both the EHR Behavioral Health Functional Model and the EHR Personnel Health Record System Model include requirements to "capture and manage patient and family preferences" with the latter specifically applying this function to treatment plans. While these standards fall short in specifying exactly how preferences should be integrated into care plans, they do demonstrate an increasing recognition that EHR systems must have the capability to capture individualized information beyond demographics and symptoms.

Agencies across the country who have committed themselves to PCCP in principle are struggling to actualize the practice, in part due to the limitations of their pre-existing EHRs. By elucidating common design pitfalls and identifying promising design practices, we provide guidance to mental health systems so they can develop EHRs that facilitate, rather than hinder, the uptake of Person-Centered Care Planning. We are not focusing on specific EHR products but rather making general observations across a variety of platforms in the hope that thoughtful EHR design can do more than "get out of the way" but become a vital strategy in promoting person-centered care. The discussion is informed by over two decades of field-based training and technical assistance in Person-Centered Care Planning.[9]

Person-Centered Care Planning

Person-Centered Care Planning (PCCP) is a clearly articulated set of practices that help translate the principles of PCCP into the clinical process and documentation of a recovery-oriented care plan.[10] A person-centered approach to care planning differs from more traditional methods of treatment planning by (1) promoting recovery rather than only

minimizing illness; (2) being based on the person's own goals and aspirations; (3) articulating the person's own role and the role of both paid and natural supports in assisting the person to achieve valued goals; (4) building on the person's capacities, strengths, and interests; (5) emphasizing the use of natural community settings rather than segregated program settings; and (6) allowing for uncertainty, setbacks, and disagreements as inevitable steps on the path to recovery and greater self-determination.[11,12] From a documentation perspective, these values translate into a person-centered plan that is based on identifying the person's own goals (valued role/vision for the future); objectives(s) or short-term goals that specify movement toward the goal by overcoming barriers (as explored within the assessment and integrated summary and often used to support medical necessity for services); and interventions that reflect both professional services, as well as self-directed and natural supports.

Behavioral health systems now vested with the task of meeting the mandate to deliver person-centered care are facing a complex range of implementation barriers that range from the *clinical* (e.g., how do we adapt the practice of PCCP for people with serious cognitive or communication impairments?) to the fiscal (e.g., will we be able to get paid for this type of plan?) and to the *philosophical* (e.g., should people with severe mental illnesses be allowed to make their own treatment and life choices?).[4] Given the diversity of implementation barriers encountered, there is an intense demand for tools and strategies to support the adoption of PCCP by aligning strengths-based, person-centered approaches with clinical documentation requirements that meet the "medical necessity" criteria of various fiscal and regulatory oversight bodies.

The Role of EHRs

Electronic health records have become one such tool to improve quality of care and promote a more person-centered orientation in treatment.[13] EHRs have the capacity to rapidly share critical information amongst providers to enhance coordination of care and to create time-saving efficiencies by using drop-down menus, check box features, and auto-populated text fields. In addition, EHR systems can be built to prevent users from omitting minimum necessary content. In this sense, they facilitate compliance with billing and regulatory standards by guaranteeing that key data points are completed (e.g., the discipline of a professional providing a particular service) and/or that different parts of the record are logically connected to establish the "golden thread" of accountability and medical necessity. Unfortunately, these same design elements that create efficiencies, facilitate data aggregation, and improve compliance can also interfere with the provider's ability to individualize the plan in accordance with person-centered documentation standards. For an EHR platform to best support PCCP, it must be thoughtfully designed so that it does not fully sacrifice person-centered design in the interest of technical efficiencies.

Once clinical and philosophical implementation barriers have been surmounted, a skilled and committed provider can still find themselves faced with a treatment planning template or electronic health record that is dominated by problems, pathology, and a complex work flow designed more to support payment than the person and his or her recovery and life goals. The so-called square peg in a round hole dilemma leads even the most person-centered of

practitioners to develop plans that are viewed by them and service users as “just paperwork” having little meaning and limited impact in guiding the recovery process over time. While these challenges can also exist for traditional paper records, they are significantly magnified for EHRs, which lock in format designs at the front end. While changing the design of a paper form or planning template requires only the time and expertise of users and administrators at the local level, changes in an EHR systems may not be possible if the EHR platform is an “off the shelf” product or is a standardized tool used by a large network of users.[14] Even if such changes are possible, the customization of the EHR may require significant expertise and expense working with an external EHR developer.

Finally, it is important to note that the implementation of person-centered EHRs requires much more than the philosophical shift of individual providers and the will of local or state behavioral health administrators. The design, functionality, and person-centered orientation of EHRs is also significantly influenced by broader systemic factors which must be aligned in order to create incentives for organizations to commit to change. Fortunately, within the context of behavioral health treatment, such incentives are growing as evidenced by federal and state regulations, managed care organization expectations, and accreditation standards that promote a recovery orientation and a person-centered approach to care and planning.[15-18] The practice of PCCP is considered a cornerstone of quality in behavioral health systems across the country and it is increasingly not only encouraged, but required. Most significantly, in 2014, PCCP was explicitly identified as a requirement by the nation’s largest funder of behavioral health care, the Centers for Medicare and Medicaid Services (CMS).[19] It is also a core component of the certified community behavioral health clinic model that is currently being disseminated throughout the USA.[20]

In response to the call for person-centered care, both state and local behavioral health systems across the public and private sectors have sought to maximize strategies for the adoption of PCCP, including the modification of EHR systems. Organizations who purchase EHR platforms from the larger health care technology companies in the USA have statewide user groups who meet regularly to discuss the functionality of the system, as well as the need for improvements related to person-centered orientation. Many information technology companies also host national conferences for users to advocate for changes within the software to enhance both its technical design and its consistency with emerging behavioral health best practices. Finally, industry associations, such as the National Council for Behavioral Health, have partnered with information technology companies to act as the voice of their member organizations in advocating for EHR platforms that meet the growing expectations around person-centered care. The following considerations regarding how to avoid the pitfalls and maximize the potential of EHRs to promote person-centered care are designed to inform these advocacy efforts.

The Pitfalls of EHR Design

Mechanisms within the EHR which strive to maximize efficiency by automating large portions of the plan content often do so at the expense of person-centered quality. Such EHRs typically generate “cookie-cutter” plans that are highly deficit-based and experienced as unhelpful, or even offensive, by the very individuals the plans are intended to serve. For

example, some EHR platforms are designed around pre-set libraries that make inherent algorithmic assumptions (e.g., select a diagnosis that populates a preset problem list and a matching set of objectives). The result being that they are diagnostically driven and do not have the capability to reflect the unique nature of each person's illness and recovery. Similarly, drop-down menus limit providers' ability to capture the uniqueness of the person by confining them to a set range of options created usually by providers rather than service users. This is in contrast to open-text fields which prompt providers to also record content and/or quotes reflecting the person's unique experience and preferences.

Many EHR products reflect more traditional, medical-model approaches to service delivery which are problem driven, professionally determined, and highly fragmented. One primary reason for the perpetuation of this approach is the pressure that practitioners feel to demonstrate how the recovery plan is responsive to the needs/problems as identified in the assessment. While establishing medical necessity is a fundamental quality requirement, federal and state regulations and accreditation standards also support a recovery orientation and person-centered approach to planning.[21]

In many cases, agencies develop a strategy to link the assessed needs and the plan in a manner that can pull recovery plans away from their intended person-centered focus. Specifically, the most straightforward way to demonstrate that the recovery plan is responsive to the clinical needs is to develop one goal to "match" each priority need as identified in the assessment. In an era where the use of electronic health records is rapidly expanding, the structure of EHR planning templates may even auto-populate this function, e.g., every assessed problem with a certain score, automatically carries over into a goal statement on the individual's plan. This "domain-based" planning drives providers to rigidly classify, and then separate, problem-focused goals into discrete categories. Within such models, it is also common for certain areas to be considered "mandatory" for inclusion in the plan, e.g., every plan must include a psychiatric goal, a substance abuse goal, and a risk-management goal.

While the comprehensive assessment may show that these areas are, in fact, in need of attention, identifying them as independent goals can lead to the type of fragmented, overly complex, and problem-driven plans that feel divorced from what people value as most important in their lives and recovery. For example, an individual may have one goal each for the "assessed needs" of assaultive behavior, poor hygiene, substance use, and auditory hallucinations. These goals are documented in the electronic health record with little to no connection to the persons most valued recovery goals and motivations in life. They are commonly experienced as offensive and demoralizing by people in recovery and they are inefficient and impractical for providers to document. Recovery plans get carved up into a range of problem areas and the recovery focus of the document is quickly lost. Alternatively, EHR designs which have the capacity to "integrate rather than separate" allow clinical needs and risk issues to be addressed in so far as they interfere with the person's valued goal.

The Promise of EHR Design

By making different design decisions, EHRs can become a key strategy in transforming problem-driven care into person-centered care.[17] The sequencing of sections within the recovery plan can have a significant impact on the plan's overall tone and person-centered quality. Beginning the plan with hopes, dreams, and strengths prior to delving into the individual's clinical history and psychiatric diagnosis sends a message that the provider respects the individual as a whole person, rather than treating them as compilation of symptoms and problems.

EHR design needs to reflect the logical hierarchy inherent in a person-centered approach, i.e., the person's individualized life goal sits at the top of the hierarchy and problems are seen as barriers to achieving that goal. The clinical needs and problems which present as barriers are then responsibly addressed, not as goal statements but through targeted short-term objectives and tailored interventions. For example, a person-centered plan might begin with the goal statement of "I want to get my job back so I can be a good provider for my children." Issues which interfere with this valued goal are not ignored in the context of the plan, but rather they are framed as roadblocks which have been preventing the person from reaching their hoped-for destination of employment. For example, behavior problems may have led to job termination due to conflicts with coworkers or supervisors or difficulties with selfcare might interfere with a person's presentation at a job interview. Similarly, substance use may have led to chronic absenteeism or active psychotic symptoms may lead to disorganization and poor work performance. Each of these areas can receive adequate attention in the person-centered plan through their incorporation into the plan's barriers, short term-objectives, and individualized interventions, which are all fundamental documentation elements in both quality treatment planning as well as the golden thread of medical necessity. Therefore, when designing treatment planning templates and EHR platforms, it is critical that the plan start with and flow from the person's valued life goal, keeping in mind there are many other places within the plan to address clinically related problems and satisfy requirements around medical necessity. Figure 1 presents the core structure and logic model of building person-centered care plans.

The optimal EHR structure combines both open-text fields and drop-down menus. For example, the goals section of a recovery plan is best reflected as an open-text field that allows the user to enter individualized narrative content, ideally in the person's own words. Other parts of the plan which are closely monitored for compliance requirements may be better handled by a mixed design. For example, in the intervention section, drop-downs can be used for the efficient entry of provider discipline, name of service provided, and frequency, duration, and intensity of intervention. Alongside the drop-down, an open-field textbox allows the clinician to briefly state not just *what* it is they are doing but *why* they are doing it in relation to the person's unique goals and objectives, thereby enhancing the individualization of the plan and ensuring services remain connected to the person's stated preferences.

The design of the EHR can also support the prioritization and monitoring of the range of issues identified in the comprehensive assessment, without automatically including *all* active

problem areas in the current plan. Having the capacity to prioritize goals and need areas as "work on now/work on later/or not a priority" or "active/deferred/referred out" helps to streamline and focus the content of the current plan on the most pressing needs and desires of the individual. For those areas not addressed in the current plan, the EHR should include a field soliciting the practitioner's rationale for excluding something from the plan making it clear it is not an oversight. Prioritization structures in the design of EHRs increase the likelihood of the person getting traction and experiencing success as opposed to scattering the person and the provider's attention across an unwieldy number of goal areas at any given time. Items that are deferred can be archived and tracked in the electronic system and automatically presented back for review at the time of the plan update to revisit whether or not the area should then be activated.

EHRs can be further modified to enhance the individual's sense of self-agency as well as his or her natural support network. This can be achieved through an initial "build your recovery team" prompt on the front-end to encourage the identification and involvement of natural supporters as well as through the customization of the interventions section of the treatment planning template. Traditionally, this section can inadvertently foster dependency on the professional treatment system as action steps noted on the planning template in the EHR are limited to the range of clinical and rehabilitative treatments offered by the formal service system. In contrast, a more person-centered design would include fields for the documentation of natural support contributions as well as self-directed actions by the person in recovery. For example, perhaps a coworker could be enlisted to assist with rides to and from the workplace and/or the individual him or herself might independently make use of a local library to support his/her job search. The inclusion of these expanded action steps by both the person and his or her natural supporters represents an important opportunity to ensure that the plan content is maximally aligned with recovery-oriented principles. Furthermore, the dedication of distinct EHR fields to identify self-directed actions and natural support contributions allows these plan elements to be tracked over time yielding critical data reports which can then be used for quality improvement efforts and for the identification of training needs. For example, providers which have been particularly successful incorporating natural supporters in person-centered care plans may have strategies or tools to share with others who are struggling in this area.

The design of the plan can also actively promote shared decision-making and incorporate the wisdom of the person's lived experience. EHRs are a powerful tool to increase transparency and give service users more power over defining and shaping their care.[22] Specific fields can be designed in such a way that both parties have the opportunity to have input into the plan, even in such cases when they need to "agree to disagree." Greater service user participation can be built in by patient portals that allow people to access and input information remotely. These patient portals have an empowering role for the individual, providing a first opportunity to describe their hopes and concerns in their own words.[23] Patient portals also can house critical recovery-oriented tools and documents which can enhance the person's care, but otherwise may not come to the attention of the primary clinical practitioner, e.g., patients may choose to upload things such as psychiatric advance directives or wellness recovery action plans.

Finally, thoughtfully designed EHRs have the potential to significantly shape clinical workflow and act as a mechanism to support the implementation and uptake of Person-Centered Care Planning. For example, a promising next step in the design of person-centered EHRs would be to embed a PCCP quality indicator plan review tool into the architecture of the EHR itself. We have developed such a tool, the Person-Centered Care Planning Assessment Measure (PCCPAM),[14] and are exploring its incorporation in a customized EHR platform. The PCCPAM tool could be utilized by clinical practitioners and their supervisors for the purpose of self-assessing the quality of their plan documentation as well as agency-wide quality improvement processes.

Despite the growing recognition of the potential for EHR systems to facilitate the implementation of person-centered care and planning, there are still no “off-the-shelf” products which consistently reflect PCCP principles. As a result, community mental health centers (CMHC) often find their commitment to PCCP to be ahead of the technology available and embark on collaborative ventures with information technology vendors to co-develop platforms to meet their needs. The experience of Newport Mental Health (NMH), a Rhode Island-based CMHC, illustrates this organizational process of transitioning from a problem-driven/domain-based system to a more person-centered, customized EHR. Table 1 provides an overview of the PCCP-promoting specifications identified by Newport Mental Health to inform their collaborative EHR design effort.

Implications for Behavioral Health

The promise and pitfalls of EHR design with respect to PCCP demonstrates that, in addition to training and competency development, providers must have a treatment planning platform that allows them to actualize new person-centered skills and behaviors in practice. For this reason, front-end technical assistance and consultation on structural design in the early stages of EHR development represents a critical area of intervention to support the organizational implementation of Person-Centered Care Planning. Similarly, although EHRs offer substantial advantages in terms of sharing and compiling information, they can also be extremely difficult to modify as compared to the modification of traditional paper records given the technical expertise involved. In some cases, “off the shelf” EHR products are essentially purchased “as-is” and enhancements are either not allowed or they must be contracted with the EHR vendor at a cost that is not affordable for many behavioral health organizations. In soliciting bids around EHR design, it is wise for systems to fully explore what exactly is involved in the modification process so that the EHR can be tailored over time in response to user feedback. In order for an EHR user to capitalize on the embedded design features that promote quality planning, the EHR needs to be technically efficient with an easy-to-navigate user interface. It is difficult to focus on the nuances of the person-centered approach to care when practitioners have to struggle with the basic technical task of data entry and screen flow.[14]

Additionally, the design should fully utilize query and reporting capabilities to compile and present the information in the system in meaningful, easy-to-use formats for clinical practitioners as well as for individuals in recovery. For example, while there may be an abundance of information that exists within the medical record as a whole, consideration

should be given to what elements of the record actually populate the version of the recovery plan that provides the individual with meaningful information. The input of people in recovery should be paramount in this process. Significant testing should be performed during the development phase with end users to ensure the EHR provides a user-friendly interface that does not consume valuable time through inefficient navigation and workflow.

Conclusion

As EHRs become utilized in all aspects of service delivery, we must consider how their design impacts the quality of care both at the organizational level and within state and national efforts to improve and standardize EHRs within behavioral health care. We have shared how the EHR must balance administrative needs with clinical needs including how to capture and shape person-centered care in accordance with the unique goals of service users. However, while a well-designed EHR is a necessary condition, it is not sufficient for implementing person-centered care and planning. The mere presence of an open-text field in and of itself is not sufficient to achieve this desired individualization; staff must have training and supervision to reliably and effectively use the fields to capture quality content that enhances the plan. Also, providers must engage service users and natural supports in the service planning process, particularly as organizations implement patient portals.[24] But when designed well, EHRs can not only reflect person-centered care, they can also promote the practice. They have the potential to become virtual trainers with embedded prompts, information and tools that help providers focus on key recovery concepts, facilitate dialogue with service users, and generate the co-creation of meaningful plans. Similarly, EHRs have the capacity to support people in recovery by giving them both access and input into a documentation process that has often been closed off to them—perhaps the most critical step in moving toward truly person-centered care.

References

1. Berwick DM. What ‘patient-centered’should mean: Confessions of an extremist. Health Affairs. 2009; 28(4): w555–w565. [PubMed: 19454528]
2. New freedom Commission on Mental Health. Achieving the Promise: Transforming Mental Health Care in America. Final Report. DHHS publication number SMA-03–3832, Rockville, MD: 2003.
3. Stanhope V, Ingoglia C, Schmelter B, et al. Impact of person-centered planning and collaborative documentation on treatment adherence. Psychiatric Services. 2013; 64(1):76–79. [PubMed: 23280459]
4. Tondora J, Miller R, Davidson L. The top ten concerns about person-centered care planning in mental health systems. International Journal of Personalized Medicine. 2014; (3):410–420.
5. Health Information Technology for Economic and Clinical Health Act, Title XIII of Division A and Title IV of Division B of the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 226 (2009).
6. *Patient Protection* and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119, codified as amended at scattered section of the Internal Revenue Code and in U.S.C (2010).
7. Larrison CR, Xiang X, Gustafson M, et al. Implementation of electronic health records among community mental health agencies. The Journal of Behavioral Health Services & Research. 2018; 45(1):133–142. [PubMed: 28439789]
8. HL7 International. Introduction to HL7 Standards. Available online at: http://www.hl7.org/implement/standards/index.cfm. Accessed July 20, 2020.

9. Tondora J, Miller R, Slade M, et al. Partnering for recovery in mental health: A practical guide to person-centered planning. Hoboken, NJ: John Wiley & Sons, 2014.
10. Adams N, Grieder D. Treatment planning for person-centered care: the road to mental health and addiction recovery: mapping the journey for individuals, families and providers. 2nd ed. San Diego, CA: Academic Press, 2014.
11. Tondora J, Pocklington S, Gorges A et al. Implementation of person-centered care and planning. From policy and practice to evaluation. Washington, DC: Substance Abuse and Mental Health Services Administration. 2005.
12. O'Brien J, Lovett H. Finding a way toward everyday lives: The contribution of person-centered planning. Harrisburg, PA: Pennsylvania Office of Mental Retardation. 1992.
13. Riahi S, Fischler I, Stuckey MI, et al. The value of electronic medical record implementation in mental health care: A case study. JMIR Medical Informatics. 2017; 5(1): e1. [PubMed: 28057607]
14. Stanhope V, Matthews EB. Delivering person-centered care with an electronic health record. BMC Medical Informatics and Decision Making. 2019; 19(1):168–177. [PubMed: 31438960]
15. The Joint Commission. Advancing effective communication, cultural competence, and patient- and family-centered care: A roadmap for hospitals. Oakbrook Terrace, IL: The Joint Commission. 2010.
16. Substance Abuse and Mental Health Services Administration. Federal Guidelines for Opioid Treatment Programs. HHS Publication No. (SMA) XX-XXXX. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.
17. Comission on Accreditation of Rehabilitation Facilities. Behavioral Health Standards Manual, 2019. Available online at http://www.carf.org/Accreditation/QualityStandards/. Accessed on July 20, 2020.
18. Optum Behavioral Health Services. *A Whole-Person Approach to Improve Outcomes* For Medicaid Agencies And Their Members. Available online at https://www.optum.com/content/dam/optum3/optum/en/resources/brochures/WF252066_Behavioral_Health_Brochure_HR.pdf. Accessed on July 20, 2020.
19. Centers for Medicare and Medicaid Services. Fact sheet: Summary of key provisions of the 1915(c) Home and Community-Based Services (HCBS) waivers final rule (CMS 2249-F/2296-F). Baltimore, MD: Center for Medicare and Medicaid Services. Available online at https://www.medicaid.gov/medicaid/home-community-based-services/guidance/home-community-based-services-final-regulation/index.html. Accessed on November 5, 2020.
20. The National Council for Behavioral Health. CCBHC Demonstration, Early Results Show Expanded Access to Care, Increased Scope of Services, 2017. Available online at https://www.thenationalcouncil.org/BH365/files/2017/11/National-CCBHC-survey-write-up-FINAL-11-28-17.pdf. Accessed on July 20, 2020.
21. Finkelstein J, Knight A, Marinopoulos S, et al. Enabling Patient-Centered Care Through Health Information Technology. Rockville, MD: Agency for Healthcare Research and Quality, 2012.
22. Walker J, Darer JD, Elmore JG, et al. The road toward fully transparent medical records. New England Journal of Medicine. 2013; 370(1):6–8.
23. Deegan PE. A web application to support recovery and shared decision making in psychiatric medication clinics. Psychiatric Rehabilitation Journal. 2010; 34(1):23–28. [PubMed: 20615841]
24. Adams N, Grieder D, Nerney T. Models, principles and values of person/family-centered planning. Chicago, IL: UIC National Research and Training Center on Psychiatric Disability. 2005.

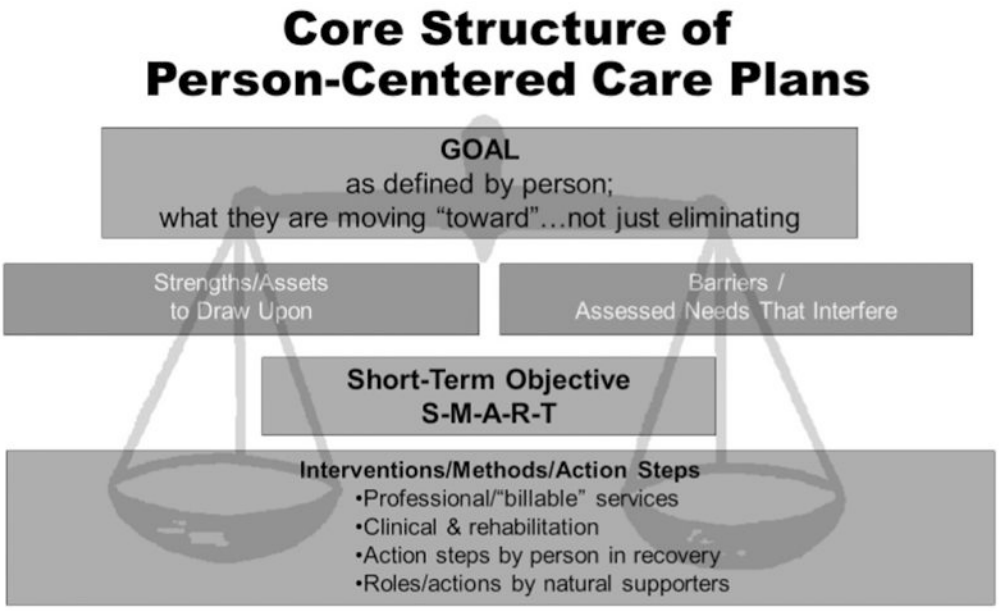

Figure 1.
Core structure of person-centered care plans.

Table 1

Key elements in person-centered EHR design

The EHR structure and elements reflect the principles of person-centered care
• Goals (rather than problems) are at the top of the logical hierarchy. Goals prompt for statements in the person's own words but include a place for practitioners to weigh in, reflecting the partnership and dialogue inherent in PCCP
• Problems are understood as barriers to reaching the person's unique life goals.
• Strengths are integrated into each goal area
• Objectives prompt for concrete steps that will be proof that the person is overcoming a mental health/addictions barrier and making progress toward his/her goal
• Services provided by the agency include prompts/dropdowns of elements required to support accreditation and billing requirements (e.g., frequency, duration, service type) as well as an open-text area to personalize the service
• The EHR includes fields for documentation of natural supports contributions as well as self-directed actions by the individual
The EHR user interface reflects the principles of person-centered care
• Questions/prompts are written using strength-based, person-first language
• Online help is available with samples of key PCCP elements written in person-centered language
• The user interface is user-friendly and sufficiently flexible to capture the natural flow of the practitioner/person in recovery conversation
• The plan is easily amendable to reflect changes over time
The EHR structure supports an individualized plan
• Each key data element (e.g., Goals, Barriers, Strengths Objectives, Services) includes an open-text field to be completed on an individualized basis
• The plan reflects the priorities, preferences and language of the individual. Hard-wired logical connections such as auto-populating libraries with pre-set text or automatically populating the plan from the assessment are discouraged
• "Domain-based" planning structures which require users to rigidly classify, and then separate, goals into discrete categories are also discouraged
• The EHR integrates other documents reflecting direct input from the person including Advanced Directives, Personalized Crisis Management Plans, and direct participant input via client portal mechanisms