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Realigning theory with evidence to understand the role of care coordination in mental health services research

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Abstract

Current theoretical models intended to guide health services research and evaluation lack care coordination-its features and impacts. These aspects are critical for understanding the role of care coordination in healthcare use, quality, and outcomes. In this Focus article, we briefly review the well-known Andersen individual behavioral model (IBM) of healthcare use and the Donabedian health system and quality model (HSQM) together with recent practice-based evidence. We propose a new integrated theoretical model of healthcare and care coordination. The model can serve as a guide for future research to better understand the variation in care coordination services and delivery and its added value to improving mental health in different real-world settings.

Keywords

Care coordination, mental health, health services research

Introduction

The pandemic has brought stark attention to rising mental distress and the challenges that many people face accessing and navigating healthcare. Care models employed to support people with mental health conditions have proven valuable in addressing a wide range of needs among adults and children, including access to combined therapies, issues with employment and housing, and management of co-occurrence of addiction and other conditions.[1,2] Yet while care models have evolved to measure aspects of care coordination, our current theoretical models have not changed. The lack of a theoretical model that incorporates evidence from practice makes it challenging to design new studies of care coordination in a variety of settings. A new theoretical model is needed that will guide future evaluation and research about the role of care coordination and its influences on healthcare utilization, quality, and mental health outcomes.

We need to rethink how we conceptualize individual behavior, access to care, and quality of care. The focus on patient-engaged, patient-centered research of the past several years draws attention to the processes that patients experience in their health service use. The longstanding Andersen individual behavioral model of healthcare use (IBM) describes how the individual and their predisposing, enabling, and need context impact access, use, and health outcomes.[3] The well-known Donabedian health system and quality model (HSQM) depicts how structure and process lead to outcomes that reflect the quality of care provided by health systems.[4] Both models have served as cornerstones of mental health services research. Nevertheless, while both models have been revised extensively, the role of care coordination has been ignored. Without integration of care coordination into health care utilization and quality models, it is challenging to assess its value and impact on mental health outcomes.

We propose a new theoretical model that integrates care coordination explicitly. To accomplish this, we review and combine the current theoretical models. We suggest features, influences, and impacts to guide future evaluation of care coordination.

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Evolution of the individual behavioral model

IBM has always included individual predisposing, enabling, and need characteristics and their interaction with the healthcare system.[5–7] Early versions had components of access (the outcome of interest) and structure, defined as characteristics of the system that determine what happens to the patient following entry.[5,6] For example, having a regular source of care has been associated with improved health outcomes for homeless adults.[8] Structure was distinct from processes, paralleling Donabedian's concurrent work.[9] In 1974, the goal of the model was expanded to inform health policy, service use, and satisfaction with those services.[7] Quality was included as an outcome as well as quantity. The socio-organizational aspects of access were described as system resources that facilitate or hinder the efforts of a client to obtain care, drawing from Donabedian.[10] For example, the measurement of receipt of the preferred type of mental health service (psychotherapy or pharmacotherapy) is important to assess patient-centered care.[11] Subsequent iterations of the IBM explored further dimensions of access including continuity of care, delay in help-seeking, and adherence to a prescribed regimen of treatment.[12,13]

Reviewing how the model had been used over time, Andersen noted that revisions emphasized the dynamic and recursive nature of the model.[3] For example, there is evidence that experience of healthcare discrimination exacerbates barriers to depression treatment such as forming trusting relationships with providers.[14] These themes emphasize the interaction of an individual with the healthcare system to perceive the need, explore options, learn from the experience of use, and coordinate a plan of care.

Evolution of the health system quality model

Donabedian's model depicts a healthcare system or provider comprising three components: (a) structure, and (b) process, which in turn lead to (c) aggregate health outcomes.[4] Structure refers to the resources required, such as personnel and equipment. The best process measures are those for which there is research evidence that better processes lead to better outcomes. For example, performing routine screening for depression identifies those at risk early so that treatment options can be considered; prescribing counseling or anti-depressants reduces the likelihood and severity of depression symptoms; integrating a social worker in primary care reduces emergency department use.[15] Similarly, the best outcome measures are those over which the health care system has influence. For example, food insecurity may not be an appropriate outcome measure because health systems lack the means to adequately identify those at risk. By contrast, symptom improvement in patients with severe mental illness is a reasonable outcome measure.[16–18] Both structure and process dimensions can provide valuable information for measuring quality.

Later adaptions of the Donabedian model distinguished technical care from interpersonal care, as well as expansion to include other outcomes including: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.[19] More recent models added patient experience,[20] and provider experience.[21]

Building theory from practice-based evidence

The term "integrated-care" reflects strategies designed to improve the mental health outcomes of people with complex needs, including those with mental health needs. Notable examples include the Collaborative Care Model,[22] First Episode Psychosis Care,[23] and Assertive Community Treatment.[24] In each case, care coordination is an integral feature. Table 1 highlights three systematic reviews of prior research in adult and pediatric populations.[25–27] These studies provide evidence that care coordination supports health behaviors and health outcomes for adults and children with mental health conditions.

Care coordination embodies aspects of both *structure and process* ranging from informational support to advanced knowledge and direct services.[28] In mental health care *structural dimensions* of care coordination may include specific personnel, such as social workers or community health workers embedded in provider teams who can build relationships with patients and identify issues that may precipitate mental health problems, and facilitate access to providers and needed services.[29] For children with medical complexity, important characteristics of structure are training and lived experience as a parent or caregiver.[30]

Care coordination can also implement *processes* such as screening for depression or sharing patient data between primary and specialty care.[31] For families of children with mental health needs, important processes include family engagement and co-selection of treatment strategies.[30] Care coordination processes can be key to getting to the right health system or provider at the right time for mental and physical health care needs to be fully met.

In the U.S., in contrast to other countries with national programs for the delivery of integrated-care services, most people with mental health needs receive a variety of care coordination services from different settings and with differing intensity. Few practices have the staffing to implement integrated care, waiting lists are long and satisfaction with services is highly variable.[32,33] As a result, evidence on the value of care coordination in real-world settings is mixed. Care coordination has proven successful for improving adult psychiatric patients' access to care, clinical outcomes, and patients' experiences.[34,35] Yet the unique and interactive effects of the various components of care

Table 1. Summary of selected systematic reviews on care coordination in adult and pediatric mental healthcare.

Reviews	Components of effective pediatric integrated mental health care models: A systematic review	EPA guidance on the quality of mental health services: A systematic meta-review and update of recommendations focusing on care coordination	Systematic review and meta-analysis: Effectiveness of wraparound care coordination for children and adolescents
Citation	Yonek J, Lee CM, Harrison A, Mangurian C, Tolou-Shams M. Key components of effective pediatric integrated mental health care models: A systematic review. *JAMA Pediatr.* 2020;174(5):487–498. doi: 10.1001/jamapediatrics.2020.0023	Gaebel W, Kerst A, Janssen B, *et al*. EPA guidance on the quality of mental health services: A systematic meta-review and update of recommendations focusing on care coordination. *Eur Psychiatry.* 2020;63(1):e75. doi: 10.1192/j.eurpsy.2020.75	Olson, JR, Benjamin, PH, Azman, AA, Kellogg, MA, Pullmann, MD, Suter, JC, Bruns, EJ. Systematic review and meta-analysis: Effectiveness of wraparound care coordination for children and adolescents. *Am Acad Child Adolesc Psychiatry.* 2021;60(11):1353–1366. doi: https://doi.org/10.1016/j.jaac.2021.02.022
Objective and approach	–Conduct systematic literature review of effective pediatric integrated mental health care models among published articles –Identify key characteristics of effective models –Years: 1985–2019	–Conduct systematic meta-review of systematic reviews, meta-analyses, and evidence-based clinical guidelines focusing on care coordination for persons with mental illness in three literature databases –Years: 2011–2020	–Conduct an updated meta-analysis of wraparound research -Estimate effects on youth outcomes (symptoms, functioning, school, juvenile justice, and residential placement) and costs -Search published articles, reports, grey literature, dissertations Years: 1991–Fall 2019 -Conduct random effects modeling -Assess effect sizes and homogeneity of effects using Q statistics
Yield	-Identified 11 studies, involving 2190 participants -Study types found: all randomized clinical trials	-Identified 23 documents -Covered topics found: Case management, integrated care, home treatment, crisis intervention services, transition from inpatient to outpatient care and vice versa, integrating general and mental healthcare, technology in care coordination and self-management, quality indicators, and economic evaluation	-Identified 17 studies -Types found: 11 peer-reviewed studies, 2 technical reports, 3 doctoral dissertations, and 1 Master's thesis
Outcome measures found/included	-Clinical improvement, defined as reduced symptom severity	-Health outcomes, for example, symptom reduction, global functioning, quality of life, or service outcomes	-MH symptoms; MH functioning; juvenile justice; school functioning; residential outcomes; costs
Summary of results	-Found 3 studies fully implemented the CCM; 4 studies implemented co-located care (MH specialists embedded within primary care settings but practiced independently using a traditional referral model); 1 implemented collaborative consultation (remotely located psychiatrists advised PCPs regarding ADHD medication therapy); 1 implemented a hybrid approach (remotely located psychiatrist and in-clinic	-Found limited evidence; some concepts of care coordination seem to improve the effectiveness and efficiency of mental health services and outcomes on patient level -More evidence is needed to better understand the advantages and disadvantages of different care coordination models -Developed 15 recommendations for care	-Overall effect sizes found for Wraparound were similar to mean effect sizes found for evidence-based psychosocial treatments compared to usual care -Found positive effects for Wraparound, especially for maintaining youths with severe emotional disorder in the home and community -Across different outcome categories, significant,

(continued)

Table 1. Continued.

	MH specialists delivered treatment to children with ADHD and their caregivers)	coordination in European mental healthcare; those recommendations based on reviews that showed the strongest evidence were: Recommendation 1. Research programs on mental healthcare services are needed that systematically assess the impact of different models of care coordination on patient-level and healthcare system–level outcomes (recommendation grade D) Recommendation 2. Implement intensive case management for people with severe mental illness who are high users of inpatient care and difficult to engage or recurrently disengage (recommendation grade B) Recommendation 3. Implement multidisciplinary team–based psychiatric community care (recommendation grade B) Recommendation 8. Implement crisis intervention teams for people with mental illness in home and community treatment (recommendation grade B). Recommendation 11. Implement consultation liaison psychiatry in primary healthcare (recommendation grade B)	medium-sized effects were found for residential outcomes and school functioning; significant small effects for mental health symptoms and functioning; and nonsignificant effects for juvenile justice outcomes
Key elements identified	-Most common model components were population-based care, measurement-based care, and evidence-based mental health services -Components were present in all 7 studies reporting significant improvement in primary (clinical) outcomes	-The studies compared either several components of coordinated care models or focused on one specific coordinated care component -Specific primary components found in studies included: case management, integrated mental health services, and home treatment, (6); crisis intervention services (5); transition from inpatient to outpatient care and vice versa, return-to-work (4); integrating general and MH care (3); technology and self-management in care coordination (2); quality indicators/economic evaluation (3)	-Practice adherence, that is, implementation fidelity, was associated with Wraparound outcomes in 3 studies -Lower costs in Wraparound compared to usual care (3)
Limitations	-Lack of a single definition of integrated mental health care made identification challenging -Model components reported in the published studies was often limited	-Identified systematic reviews and meta-analyses that concluded that findings from the available primary studies were insufficient to draw definitive conclusions -In this updated review some evidence was available but not for all aspects of integrated care -Emphasized need for future studies to disentangles the unique and interactive effects of the various components of integrated care	-Many studies had methodological weaknesses; fidelity measurement was largely absent -Recommended cautious interpretation due to heterogeneity of effects across studies and some evidence of publication bias

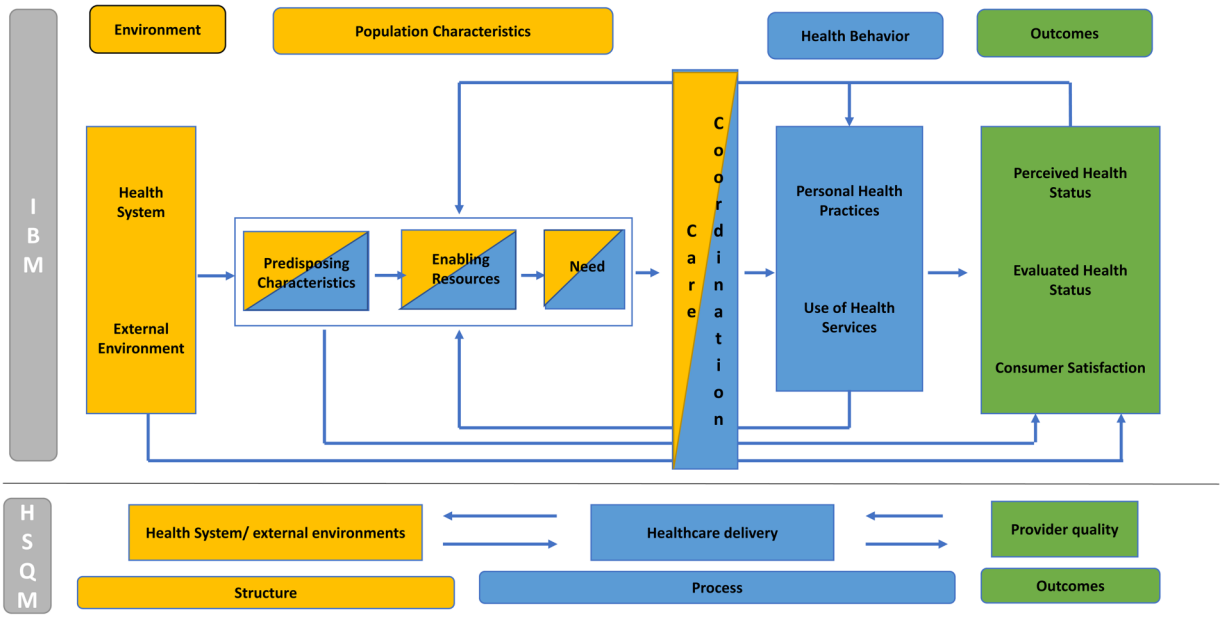

Figure 1. An integrated theoretical model of healthcare and care coordination. Authors adaptation of the IBM and HSQM models.[3,4]

coordination for mental healthcare are not well understood.[25] Care coordination for children with psychiatric conditions or developmental delay has improved healthcare experiences and outcomes leading to more planning, reduced unmet need, more family-centered care, and greater satisfaction with care.[26,36,37] But evidence on key elements of care coordination and their impacts on health outcomes is lacking.[26]

An integrated theoretical model of healthcare and care coordination

The overlapping content and shortcomings of the IBM and HSQM together with practice-based evidence point to a need for a new theoretical model that explicitly includes care coordination to generate evidence from real-world settings. An integrated theoretical model of healthcare and care coordination is presented in Figure 1.

The integrated theoretical model of healthcare and care coordination includes all of the elements of the IBM and HSQM models. Overlap in the individual and system level domains is indicated by placement and color: structure (yellow), process (blue), and outcome (green) at individual and health system levels. The environment domain of the IBM is aligned with the structure domain of the HSQM. The health behavior domain of the IBM is aligned with the process domain of the HSQM. The outcome domain of the IBM is aligned with HSQM outcomes. The population characteristics domain of the IBM is heterogeneous with respect to HSQM domains, sharing structure and process features. For example, the enabling charactistic of individual health insurance includes the structure of plan benefits (premium, copayments, coverage limits, and scope) and the process of its use (poor understanding of mental health benefits, the choice of in- or out-of-network providers, and the experience of surprise out-of-pocket payments).

Care coordination is explicitly integrated with structure and process features.[38] Key practice principles of care coordination include processes (reliable and valid patient assessment, effective communication between patient, caregiver, and provider) and structure (supported linkages between healthcare resources and community, integration across domains of care).[39] Ideally, coordination of care ensures that accountable structures and processes are in place for a comprehensive plan of care across providers and settings in alignment with patient and family needs, preferences, and goals.[40]

The need to measure and assess the impacts of care coordination motivates the integrated theoretical model of healthcare and care coordination. The new integrated theoretical model includes feedback loops from outcomes through care coordination and back to the population or individual thereby informing predisposing, enabling, and need factors. In the figure, arrows indicate the direction and relationships with steps in the process. The integrated theoretical model provides a way of understanding and explaining how care coordination works in the context of individual behavior and health systems in practice, and emphasizes accountability features that can be applied in a broad range of real-world practice settings.

Implications for future research

The integrated theoretical model of healthcare and care coordination provides a map for exploring how to

improve care coordination and its impacts for mental healthcare. For example, there is evidence of structural racism in the receipt and impacts of care coordination for adults and children with psychiatric conditions. National data provide evidence of racial disparities in parent-reported receipt of care coordination by children with special healthcare needs.[41,42] Program-level data show structural racism in the implementation of effective care coordination for adults with psychiatric conditions measured by enrollment, phone outreach, referrals, and patient choice.[43,44] Nonetheless, study of the impact of care coordination for people with psychiatric conditions, especially accounting for racial disparities in experience of care coordination, is limited. Multivariate modeling using program data indicates variation in the impact of care coordination by race for children and adults, but these early models do not adjust for selection bias.[45,46] Secondary analysis of a randomized controlled trial of care coordination for people with first-episode psychosis found that racial disparities in service experiences were associated with reduced program impact.[47] Future research should identify the contextual factors associated with variation in implementation of care coordination and the individual factors associated with variation in receipt of care coordination. This detail is necessary to document the impacts of care coordination adjusting for selection bias arising from factors such as structural racism or patient preferences. These steps provide a foundation to craft and evaluate care coordination programs that work across a heterogeneous population with psychiatric conditions.

Conclusion

We propose an integrated theoretical model of healthcare and care coordination to guide future research on the value and impact of care coordination on healthcare use and quality and health outcomes. The model builds on established services research models and aligns with recent practice-based evidence to integrate care coordination. The model can serve as a guide for future research to better understand the variation in care coordination services and delivery and its added value to improving mental health in different real-world settings.

Author's note

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References

1. Becker AE and Kleinman A. Mental health and the global agenda. *N Engl J Med* 2013; 369: 66–73. PMID: 23822778.
2. Das JK, Salam RA, Lassi ZS, et al. Interventions for adolescent mental health: an overview of systematic reviews. *J Adolesc Health* 2016; 59: S49–S60. PubMed: 27664596.
3. Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? *J Heal Soc Behav* 1995; 36: 1–10.
4. Donabedian A. The quality of care. How can it be assessed? *J Am Med Assoc* 1988; 260: 1743–1748.
5. Aday L. *The utilization of health services: Indices and correlates. A research bibliography* 1972. Public Health Service (DHEW), Bethesda, MD: National Center for Health Services Research and Development. DREW-HSM-73-3003 Dec.
6. Andersen RM and Newman JF. Societal and individual determinants of medical care utilization in the United States. *Milbank Mem Fund Q* 1973; 51: 95–124.
7. Aday LA and Andersen R. A framework for the study of access to medical care. *Health Serv Res* 1974; 9: 208–220.
8. Gelberg L, Andersen RM and Leake BD. The behavioral model for vulnerable populations: application to medical care use and outcomes for homeless people. *Health Serv Res* 2000; 34: 1273–1302.
9. Donabedian A. The evaluation of medical care programs. *Bull New York Acad Med* 1968; 44: 117–124.
10. Donabedian A. *Aspects of medical care administration*. Cambridge: Harvard University Press, 1973.
11. Fortney JC, Burgess JFJr, Bosworth HB, et al. A re-conceptualization of access for 21st century healthcare. *J Gen Intern Med [Internet]* 2011; 26: S639–S647. https://dx.doi.org/10.1007/s11606-011-1806-6
12. Andersen R and Aday LA. Access to medical care in the U.S.: realized and potential. *Med Care* 1978; 16: 533–546.
13. Andersen RM, McCutcheon A, Aday LA, et al. Exploring dimensions of access to medical care. *Health Serv Res* 1983; 18: 49–74.
14. Progovac AM, Cortés DE, Chambers V, et al. Understanding the role of past health care discrimination in help-seeking and shared decision-making for depression treatment preferences. *Qual Health Res* 2020; 30: 1833–1850.
15. Cornell PY, Halladay CW, Ader J, et al. Embedding social workers in veterans health administration primary care

teams reduces emergency department visits. *Health Aff* 2020; 39: 603–612.
16. Stubbs B, Vancampfort D, Hallgren M, et al. EPA Guidance on physical activity as a treatment for severe mental illness: a meta-review of the evidence and position statement from the European psychiatric association (EPA), supported by the international organization of physical therapists in mental health (IOPTMH). *Eur Psychiatry* 2018; 54: 124–144.
17. Favrod J, Nguyen A, Chaix J, et al. Improving pleasure and motivation in schizophrenia: a randomized controlled clinical trial. *Psychother Psychosom* 2019; 88: 84–95.
18. Rémi J, Pollmächer T, Spiegelhalder K, et al. Sleep-related disorders in neurology and psychiatry. *Deutshes Arzteblatt International* 2019; 116: 681–688.
19. Institute of Medicine US Committee on Quality of Health Care in America. *Crossing the quality chasm: A new health system for the 21st century*. Washington (DC): National Academies Press (US), 2001.
20. Berwick DM, Nolan TW and Whittington J. The triple aim: care, health, and cost. *Health Aff* 2008; 27: 759–769.
21. Bodenheimer T and Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med* 2014; 12: 573–576.
22. Reilly S, Planner C, Gask L, et al. Collaborative care approaches for people with severe mental illness. *Cochrane Database Syst Rev* 2013; 2013: 11.
23. Powell AL, Hinger C, Marshall-Lee ED, et al. Implementing coordinated specialty care for first episode psychosis: a review of barriers and solutions. *Community Ment Health J* 2021; 57: 268–276
24. Thorning H and Dixon L. Forty-five years later: the challenge of optimizing assertive community treatment. *Curr Opin Psychiatry* 2020; 33: 397–406.
25. Gaebel W, Kerst A, Janssen B, et al. EPA Guidance on the quality of mental health services: a systematic meta-review and update of recommendations focusing on care coordination. *Eur Psychiatry* 2020; 63: e75. 1–10
26. Yonek J, Lee CM, Harrison A, et al. Key components of effective pediatric integrated mental health care models: a systematic review. *J Am Med Assoc Pediatr* 2020; 174: 487.
27. Olson JR, Benjamin PH, Azman AA, et al. Systematic review and meta-analysis: effectiveness of wraparound care coordination for children and adolescents. *Am Acad Child Adolesc Psychiatry* 2021; 60: 1353–1366.
28. Unutzer J, Harbin, H, Schoenbaum, M, Druss, B. The collaborative care model: An approach for integrating physical and mental health care in Medicaid health homes. Health Home Information Resource Center, Brief. 2013; May: 1-13.
29. Hynes DM, Buscemi J, Quintiliani LM, on behalf of the Society of Behavioral Medicine Health Policy Committee. Society of behavioral medicine (SBM) position statement: SBM supports increased efforts to integrate community health workers into the patient centered medical home. *Transl Behav Med* 2015; 5: 483–485.
30. Sadof M, Carlin S, Brandt S, et al. A step-by-step guide to building a complex care coordination program in a small setting. *Clinical Pediatrics (Phila)* 2019; 58: 897–902.
31. Rossom RC, Solberg LI, Magnan S, et al. Impact of a national collaborative care initiative for patients with depression and diabetes or cardiovascular disease. *Gen Hosp Psychiatry* 2017; 44: 77–85.
32. Williams MD, Asiedu GB, Finnie D, et al. Sustainable care coordination: a qualitative study of primary care provider, administrator, and insurer perspectives. *BMC Health Serv Res* 2019; 19: 92.
33. Gelmon S, Bouranis N, Sandberg B, et al. Strategies for addressing the challenges of patient-centered medical home implementation: lessons from Oregon. *J Am Board Fam Med* 2018; 31: 334–341.
34. Levine E, Jett C, Johnson J, et al. Outcomes of a care coordination guardianship intervention for adults with severe mental illness: an interrupted time series analysis. *Adm Policy Ment Health* 2020; 47: 468–474.
35. Smelson D, Kalman D, Losonczy MF, et al. A brief treatment engagement intervention for individuals with co-occurring mental illness and substance use disorders: results of a randomized clinical trial. *Community Ment Health J* 2012; 48: 127–132.
36. McAllister JW, McNally Keehn R, et al. Effects of a care coordination intervention with children with neurodevelopmental disabilities and their families. *J Dev Behav Pediatr* 2018; 39: 471–480.
37. Cordeiro A, Davis RK, Antonelli R, et al. Care coordination for children and youth with special health care needs: national survey results. *Clinical Pediatrics (Phila)* 2018; 57: 1398–1408.
38. McDonald KM, Sundaram V, Bravata DM, et al. Closing the quality gap: A critical analysis of quality improvement strategies (Vol. 7: Care Coordination). Rockville (MD): Agency for Healthcare Research and Quality (US); 2007. Report No.: 04(07)-0051-7. PMID: 20734531.
39. Powers BW, Milstein A and Jain SH. Delivery models for high-risk older patients: back to the future?: back to the future? *J Am Med Assoc* 2016; 315: 23–24.
40. Wagner EH, Sandhu N, Coleman K, et al. Improving care coordination in primary care. *Med Care* 2014 Nov; 52: S33–S38.
41. Bilaver LA, Sobotka SA and Mandell DS. Understanding racial and ethnic disparities in autism-related service use among medicaid-enrolled children. *J Autism Dev Disord* 2021; 51: 3341–3355.
42. Park C, Tan X, Patel IB, et al. Racial health disparities among special health care needs children with mental disorders: do medical homes cater to their needs? *J Prim Care Community Health* 2014; 5: 253–262.
43. Barath D, Amaize A and Chen J. Accountable care organizations and preventable hospitalizations among patients with depression. *Am J Prev Med* 2020; 59: e1–10.
44. Friedman BR, Durán DK, Nestsiarovich A, et al. Characteristics of Hispanics referred to coordinated specialty care for first-episode psychosis and factors associated with enrollment. *Psychiatr Serv* 2021; 72: 1407–1414.
45. Guerrero EG, Fenwick K, Kong Y, et al. Paths to improving engagement among racial and ethnic minorities in addiction health services. *Subst Abuse Treat Prev Policy [Internet]* 2015; 10: 40.
46. Hurlburt MS, Leslie LK, Landsverk J, et al. Contextual predictors of mental health service use among children open to child welfare. *Arch Gen Psychiatry* 2004; 61: 1217–1224.
47. Oluwoye O, Stiles B, Monroe-DeVita M, et al. Racial-ethnic disparities in first-episode psychosis treatment outcomes from the RAISE-ETP study. *Psychiatr Serv* 2018; 69: 1138–1145.