Definition and Conceptualization of Collaboration in Drug Rehabilitation: Systematic Synthesis and Comparison Using a Scoping Review Approach

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ABSTRACT

Objective. Although interagency collaboration in drug treatment and rehabilitation has been substantially studied, a lack of consensus on the nomenclature and definition of collaboration remains an unresolved issue in public health policy and practice. To facilitate further consensus, this review analyses previously used definition, conceptualization, and theorization on interagency collaboration in the field of drug rehabilitation.

Methods. We conducted evidence synthesis using a scoping review approach. This review is based on searches using the MEDLINE, CINAHL Complete, Embase, and PsychINFO databases and used the protocol proposed by Arksey and O'Malley.

Results. A total of 6,259 papers were retrieved from database and citation searches, 33 of which were eligible for inclusion in the analysis after screening and evaluation. Although the definitions varied, the common elements included (a) the presence of at least two entities, which were either services, programs or organizations; (b) these entities collaborated or shared resources; (c) partnership went through a development process; and (d) the intent of collaboration was to achieve a common purpose. There were five means of conceptualizing collaboration: (a) degrees, or level of intensity and formality; (b) elements, or the constitutive structure and activities; (c) stages, or the development of partnership over time; (d) levels, or the focus of the collaborative; and (e) type, or a distinction between collaboration on in policy and practice.

Conclusion. Scholarship in this field can benefit from studies that conceptualize collaboration not only cross-sectionally through the description of degrees, elements, levels, and type, but also by considering the stages dimension of collaboration (i.e., evolution of collaboration initiative over time). Countries or jurisdictions may need to formalize a term and definition for collaboration as it applies to initiatives within their territories.

Keywords: Intersectoral collaboration, substance-related disorders/therapy, substance abuse treatment centres, review

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INTRODUCTION

Drug abuse is recognized as a multifaceted, complex topic that requires efforts from various disciplines to address biological, family, and sociocultural factors.[1] Therefore, interagency collaboration is fundamental to drug treatment and rehabilitation, and governments supported establishment of initiatives in the field of drug rehabilitation, criminal justice, social welfare, and public health fields.[2–6] In a prior review[7] by the lead author of the current study on collaborative partnerships for drug treatment and rehabilitation, one notable observation is the absence of consensus on the nomenclature and definition of this concept in the literature. Moreover, some authors have interchangeably used "collaboration," "partnership," "linkage," "cooperation," and

"integration," among other terms, within the same paper.[8] The theoretical underpinning for collaboration is loose, although the theoretical basis for collaboration has been briefly discussed in some empirical studies as part of the rationale for the project undertaken.[9–13]

This scenario poses a challenge to research, policy, and practice. First, the absence of a consensus on nomenclature and conceptualization may hamper attempts to compare and/or synthesize research in this field (i.e., it is possible that the phenomenon being described or assessed in empirical papers by different scholars on the topic of "collaboration" may be referring to dissimilar or non-comparable entities). Second, without a common language, the institution and operationalization of policies and programs intended to further partnerships as a means of improving service provision may also be hampered. For instance, Fletcher et al. noted that collaboration implies that partner organizations pursuing a common outcome retain their autonomy, whereas integration means that organizations will have to come under a common authority that will direct operations.[9] This scoping review intends to fill in the knowledge gap to summarize and synthesize the definition, conceptualization, and theorization on collaboration in the context of drug rehabilitation in selected sources.

MATERIALS AND METHODS

This scoping review was developed and implemented following the general framework provided by Arksey and O'Malley,[14] Levac et al.,[15] and Tricco et al.,[16] and after consultation of similar studies that have summarized and synthesized concepts and theories in other areas of study.[17–22] Scoping reviews refer to an evidence synthesis approach that follows a defined systematic procedure for literature search, retrieval, and review, and which can be used to map evidence on a specific topic or summarize knowledge related to a discipline.[14–16]

Following a preliminary search in MEDLINE to build the search vocabulary, a full search was undertaken in MEDLINE, CINAHL Complete, Embase, and PsychINFO using a combination of index terms and key words for the concepts of "collaboration" in the context of "drug rehabilitation." These databases were chosen for two reasons: (a) the topic was related to health science, social science, and psychology fields, which were the main thematic areas indexed in these databases; and (b) these databases allowed for an advanced search of relevant articles. Inclusive search period was from database inception to the time of search (i.e., November 2019).

Below is an example of the search strategy used in MEDLINE (the full search strategy for each of the included databases is available as an Appendix):

((MH "Substance Abuse Treatment Centers") OR (MH "Substance-Related Disorders/RH/TH") OR (TX "drug rehabilitation" OR TX "drug treatment" OR TX "addiction treatment" OR TX "substance abuse treatment" OR TX "substance abuse rehabilitation")) AND ((MH "Intersectoral Collaboration") OR (TX (collaborate OR collaboration OR collaborative) OR TX partnership OR TX cooperation OR TX (linking OR linkage) OR TX coalition))

Reference lists of included papers were also perused to identify other papers relevant for the current review.

To be included in the review, papers – either empirical or conceptual papers and published in English – had to identify a term for collaboration (e.g., interagency collaboration, program collaboration), provided a definition for the term (either conceptual or operational), and/or discussed a theory or model for collaboration. Papers retrieved from citation search were included even if these papers did not specifically pertain to the context of drug rehabilitation but continued to be cited by primary papers (i.e., those retrieved from database search) as the main source of their definition or theory.

Following deduplication of the search result, title and abstract screening, and full-text assessment, were performed by two independent assessors (one of whom is the lead author), with disagreements resolved through consensus. Charting of data was done solely by the lead author using a spreadsheet application. Data abstracted from included papers were as follows: (a) the term used in the paper to refer to collaboration; (b) the precise definition provided for the term; and/or (c) the underlying theoretical approach used to study collaboration. For empirical papers, the operational definition of collaboration was also abstracted.

RESULTS

Selection of evidence sources

From 6,259 records retrieved from the databases, and an additional 19 papers identified through citation searching, 33 papers[4,8–13,23–48] met the inclusion and exclusion criteria after title and abstract screening, and full-text assessment (Figure 1). Excluded studies were those that (a) were not focused on collaboration in the context of drug treatment and rehabilitation (n = 128), or (b) did not offer a conceptual or operational definition of collaboration or related terms (n = 129).

Characteristics of evidence sources

Included papers were published from as early as 1976 (n = 2) to as recent as 2017 (n = 2). Approximately eight in 10 papers were published after the year 2000 (between 2001–10, n = 16; between 2011–20, n = 10). Nearly all papers originated from the US, with only three published in other jurisdictions (i.e., one each from Canada, Sweden, and Taiwan). A total of 20 papers were empirical in nature, while the remainder was conceptual in nature (i.e., reviews, white papers, theoretical papers).

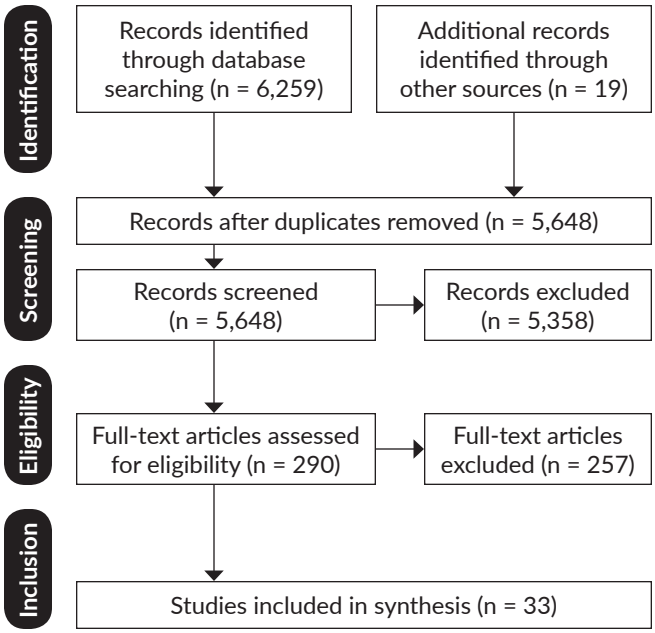

Figure 1. Study flow diagram.

Definition of collaboration

Conceptual definition

A total of 17 papers[4,8,10,13,23-35] provided a conceptual definition for collaboration or related terms. A total of 11 unique terms were used in the literature (Table 1), with *collaboration* and *integration* as the most commonly used terms. Note that the nomenclature in the field appears to interchange the umbrella term or broad concept with the categories of the degrees of collaboration, which is discussed in the succeeding sections of this paper.

The aforementioned terms were defined in 19 different ways. Although definitions varied, common elements included (a) the presence of at least two entities, which can either be services, programs or organizations (*participants*); (b) these entities collaborate or share resources (*partnership*); (c) partnership goes through a development *process*; and (d) the intent of collaborating is to achieve a common *purpose* (i.e., serve a common client or attain a shared goal).

Operational definition

Among the empirical papers on collaboration in the field of drug rehabilitation, eight presented an operational definition for collaboration (Table 2). For example, Fletcher et al.[9] measured interagency activities by adopting two sub-sections (with a total of 23 items) from responses by correctional program directors and substance abuse treatment providers participating in the National Criminal Justice Treatment Practices Survey to measure interagency activities. Meanwhile, Welsh et al.[36] measured interagency collaboration by using a validated tool with five dimensions that assesses relationships between human services organizations.

Theories on collaboration

Two streams of theories were identified in the literature, which explained either the (a) the rationale for, or the (b) process of, collaboration.

The most predominant theory used to explain why organizations collaborate is *resource dependence or exchange*, which stems from an assumption of scarce resource availability.[9-11,30,34,36,38,39] Thus, organizations are compelled to work with other partners that are able to augment such resource constraint thereby achieving cost reduction, efficiency, and cost-effectiveness for the larger partnership. The competitive advantage produced through resource sharing is thought to be greater than what single entities can possess, a phenomenon termed partnership synergy.[33,35]

In contrast to what can be considered primarily as an internal motivation to collaborate, *institutional theory* posits that organizations collaborate as a result of extrinsic pressure (e.g., public or media attention), government or regulatory directive (e.g., requirement for accreditation or funding, or statutory provision), or conformance to norms (i.e., other organizations in the field that collaborate).[9,30,34] That is, collaboration remains possible even in the absence of any tangible gains to organizations entering into a partnership.

Resource dependence and institutional theory have been suggested to be not mutually exclusive but that both can simultaneously be used to explain why organizations decide to collaborate.[34]

Two other theories on the rationale for collaboration were mentioned in the literature examined for the current review. *Rational choice* posits that organizations serving the same client or aiming for a common end user will decide to collaborate to meet the needs of these clients.[11] By contrast, *mutual dependency*, on the other hand, avers that services, programs or agencies that become aware that they are addressing a similar or joint problem tend to collaborate and become interdependent in the process.[34]

Meanwhile, the collaboration process was proposed as being a change initiative that organizations go through because organizations generally aim to preserve their independence and autonomy but decide to enter into a partnership for the aforementioned reasons. Drabble posited that the change process was linked to *diffusion of innovation* and *stages of change theories*.[40] Martinez-Brawley viewed the adoption of collaboration initiatives in human services as going through a process of *innovation diffusion*.[41] The premise is that any innovation has to have champions who identify and advocate for this change or new product/service and that the process is shaped by the social and organizational context in which it is being applied. Hence, the decision to collaborate is not simply adopted but is negotiated by stakeholders, and its application leads to further modification of the innovation.

Stages of change is a construct from the transtheoretical model, which posits that those confronted with change go through precontemplation, contemplation, preparation,

Table 1. Terms and conceptual definitions for collaboration

Source	Term	Conceptual definition
Collaboration		
Lasker et al.[33]	Collaboration	"a process that enables independent individuals and organizations to combine their human and material resources so they can accomplish objectives they are unable to bring about alone" (p. 183)
Claiborne and Lawson[27]	Collaboration	"a form of collective action. It involves two or more entities called stakeholders because they have a stake in mobilizing and developing capacities for collective action. They decide to work together in response to special interdependent needs and complex problems. They collaborate because no single stakeholder can achieve its missions and goals, improve results, and realize desired benefits without the contributions of the other stakeholders." (p. 94)
Guo and Acar[30]	Non-profit collaboration	"what occurs when different non-profit organizations work together to address problems through joint effort, resources, and decision making and share ownership of the final product or service." (p. 342-343)
Smith and Mogro-Wilson[13]	Inter-agency collaborative practice	"the exchange of information or resources among staff members from different types of agencies." (p. 546)
Butler et al.[25] ***Goodman***[29]	Collaboration	"'laboring together' to achieve a common goal." (p. 11)
Smith and Mogro-Wilson[34]	Inter-agency collaboration	"the exchange of resources or joint pursuit of mutual goals." (p. 7)
Centers for Disease Control and Prevention[26]	Program collaboration	"a mutually beneficial and well-defined relationship entered into by two or more programs, organizations, or organizational units to achieve common goals" (p. 11)
Rush[8] ***Addiction and Mental Health Collaborative Project Steering Committee***[23]	Collaboration	"Any form of cooperative enterprise, whether it be shared or collaborative care, a partnership, a network, a community coalition or various forms of integration, that aims to increase the chances of achieving some common objective compared to acting alone as an individual or organization." (p. 7)
He[10]	Collaboration	"any joint activity by two or more agencies working together that is intended to increase public value by their working together rather than separately" (p. 191)
Clark et al.[28]	Program collaboration	"two or more organizations developing procedures for pooling resources and sharing responsibilities to meet the common goal of providing more comprehensive health services" (p. 159)
Integration		
Konrad[32]	Human services integration	"process by which two or more entities establish linkages for the purpose of improving outcomes for needy people" (p. 6)
Hoffman et al.[4]	Integration	"a formalized, collaborative process among service systems with the goal of decreasing fragmentation of care and improving coordination." (p. 26)
Butler et al.[25]	Integration	"the broader effort to unify care for medical and mental health concerns, and the models being developed to address those concerns." (p. 11)
Centers for Disease Control and Prevention[26]	Service integration	"a distinct method of service delivery that provides persons with seamless services from multiple programs or areas within programs without repeated registration procedures, waiting period or other administrative barriers." (p. 15)
Goodman[29]	Integration	"the systematic linkage of services, accomplished through colocation and other means of enhancing interprofessional collaboration for the management of chronic disease." (p. 705)
Clark et al.[28]	Service integration	"delivery of different services provided by multiple programs to patients or clients through a single entry point" (p. 159)
Other terms		
Bolland and Wilson[24]	Interorganizational cooperation	"the voluntary exchange, between two or more autonomous agencies, of complementary resources needed to achieve shared goals." (p. 344, citing Reid 1965)
Heflinger[31]	Coordination	"the ability of all agencies to interact with other agencies in the community network." (p. 158)
Weiss et al.[35]	Partnership	"all of the types of collaboration (e.g., consortia, coalitions, and alliances) that bring people and organizations together to improve health." (p. 683)

action, and maintenance stages, each of which requires different strategies to ensure successful change process.[42,43] Prochaska[42] and Simpson[43] proposed that this model, which was primarily used to bring about behavioural change at the individual level, can also be applied at the organizational level.

Conceptualization of collaboration

Prior research has described collaboration through a description or measurement of five different aspects: (a) *degrees*, or level of intensity and formality; (b) *elements*, or the constitutive structure and activities; (c) *stages*, or the development of partnership over time; (d) *levels*, or the focus of the collaborative; and (e) *type*, or a distinction between collaboration on in policy and practice.

Degrees of collaboration (n = 9)

Despite the simplicity in the definition of collaboration (and its related terms), collaboration is suggested to be an umbrella term that encompasses a continuum of strategies that differ in terms of the intensity of activities jointly undertaken and the formality of the governance arrangement between participating units, hereinafter referred to as *degree of collaboration*.[8,9,23,27,32,36,44-46] The earliest and most cited work in this regard is the hierarchical services integration framework originally proposed by Konrad,[32] which describes the continuum as consisting of five categories.[8,9,45,46] A similar framework was proposed by the Canadian Collaborative Working Group on Shared Mental Health Care.[8,23] A four-point continuum of engagement was also proposed by Ahgren and Axelsson,[8,44] while Claiborne and Lawson[27] proposed a considerably complex schema consisting of eight phases that capture the increasing complexity of activities that partners who collaborate engage in. Table 3 compares the descriptors for the different degrees of collaboration discussed in the literature.

Elements of collaboration (n = 8)

Initiatives have also been described in terms of the *elements* or components of such collaboration, which encompass the structure and activities shared by participating organizations. Eight papers included in this review[9,10,24,26,27,32,37,47] listed a total of 51 such items (range: 3 to 12). Fletcher et al.[9] noted, and Table 4 shows, that all elements of collaboration as articulated by other authors can be categorized into the broad categories of service delivery, administration, and planning activities.

Table 2. Operational definition of collaboration

Source	Operational definition
Clark et al.[28]	Collaboration structure: Self-reports of informants on (a) formality of the partnership (documented through legal instruments such as contracts) and (b) active referral (i.e., client engagement in the referral process). Combination of these two elements resulted to four possible structures: • Strong (formal partnership, active referral): long-standing partnerships between organizations • with a shared history and mission • Casual (informal partnership, active referral): informal partnerships that relied on personal connections of staff members • Weak (informal partnership, passive referral): partnerships based primarily on passive referrals • One-way (formal partnership, passive referral): partnerships based on necessity rather than two-way collaboration
Fletcher et al.[9]	Interagency activity measure: Items from S3A (survey of correctional facility administrators, 11 items, e.g. "We share information on offender treatment services", "We have developed joint policy and procedure manuals") and S3B (survey of treatment program directors, 12 items, which were essentially the same as S3A except for minor wording differences and addition of item "We hold joint staff meetings") from the National Criminal Justice Treatment Practices Survey. Survey items pertained to activities that describe how an agency interacts with another agency when they have overlapping target populations. Responses were whether the activities applied or not.
He[10]	Intensity of collaboration: number of collaborative activities, specifically (a) MOUs or other formal interagency agreements, (b) cross-training of staffs, (c) co-location of staffs, and (d) joint budgeting or resource allocation. This can range from 0 = no collaboration to 4 = all four collaboration activities. Type of collaboration: Policy-related collaboration was presence of agency agreements for collaboration in the form of a MOU only. Practice-related collaboration pertained to the presence of cross-training of staffs, joint budgeting or resource allocation, and co-location of staffs.
He[11]	Engagement in collaboration: Engagement in collaborative activities [i.e., (a) memorandum of understanding (MOU); (b) interdisciplinary/cross-training; (c) co-location of SUD staff members in CW offices; and (d) shared funding or resources] operationalized as four non-mutually exclusive dichotomous variables (yes or no).
Smith and Mogro-Wilson[13]	Collaborative practice: General Collaborative Behavior (e.g., "I consult with child welfare staff about my clients") with 7 items (α = .92), and Specific Collaborative Behavior (e.g., "I have telephoned a child welfare caseworker about one of my clients in the last month") with 4 items (α = .86). Response to questions on five-point scale: (1) = never, (2) = almost never, (3) = sometimes, (4) = often, and (5) = very often.
Smith and Mogro-Wilson[34]	Used the collaborative practice scale in Smith and Mogro-Wilson[13] with addition of item on agency adoption of pro-collaboration policy. This consist of 13 possible policies to promote inter-agency collaboration (e.g., "Our agency has staff from a substance abuse agency stationed on site", "Our agency has protocols to facilitate sharing information with child welfare agencies"). Responses to questions on a five-point scale, (1) = Certainly not, (2) = Likely not, (3) = Don't know or uncertain, (4) = Likely yes, and (5) = Certainly yes. Responses of 4 or 5 were coded as having a policy.

Table 2. Operational definition of collaboration *(continued)*

Source	Operational definition
Welsh et al.[36]	20-item validated instrument used to assess dyadic relations between human service organizations, with five dimensions: • Resource Dependence (5 items, a = .83, e.g., "To what extent does probation/parole send clients with alcohol or opioid problems to the local treatment provider?") • Perceived Effectiveness of Relationship (4 items, α = .94, e.g. "To what extent do you believe the relationship between probation/parole and this treatment agency is productive?") • Agency and Personal Awareness (3 items, α = .87, e.g., "How well informed are you about the specific goals and services that are provided by this treatment agency?") • Quality of Communications (3 items, α = .67, e.g., "When you have wanted to communicate with persons in this treatment agency, how much difficulty have you had in getting in touch with them?") • Frequency of Communications (5 items, α = .84, i.e., how often respondents have had different types of communication with personnel in the other agency) Responses to first four sub-scales were worded as five-point Likert scales (e.g., 1 = Not at all; 5 = Very much), while the last item used a nine-point Likert scale (0 = zero times in the past 6 months; 8 = about every day).
Wenzel et al.[37]	Collaborative linkage: Eleven characteristics of linkage: • Accommodation of practice standards (single item, "To what extent do the [drug court's/provider's] practice standards take into account or accommodate the practice standards of the [service provider/drug court]?"). Response: five-point scale ranging from "always" to "never". • Case management (8 items, e.g., "Serve as offenders' primary point of contact," "Follow-up on offenders after they have graduated from the program," "Follow-up on offenders after they have left the program without graduating"). Response: five-point scale ranging from "every offender" to "no offenders." • Cross-training of staff (2 items, i.e., whether there had been more than one training session, and whether there were plans to provide additional training in the future). Response: yes or no. • Documentation of relationships (3 items, e.g., "Has the agreement describing the service relationship with [drug court/provider] been written down in detail?"). Response: yes or no. • Resource sharing (4 items, i.e., frequency of sharing of funds, staff, facility space, and equipment). Response: five-point scale ranging from "always" to "never". • Joint assessment (single item, i.e., portion of drug court offenders for which the court and provider shared assessment responsibilities). Response: five-point scale ranging from "every offender" to "no offenders." • Joint planning (single item, i.e., extent to which the drug court and provider jointly plan clients' treatment and service goals). Response: five-point scale ranging from "every offender" to "no offenders." • Referrals (single item, i.e., portion of offenders referred). Response: five-point scale ranging from "every offender" to "no offenders." • Sensitivity to concerns (single item, i.e., "Are [providers/drug courts] generally sensitive to the concerns and operations of your program?"). Response: five-point scale ranging from "always" to "never". • Sharing information (7 items, i.e., extent to which drug courts and providers shared seven kinds of information about offenders in the program). Response: five-point scale ranging from "every offender" to "no offenders". • Staff meetings (2 items, e.g., "How often have drug court and provider staff made work-related or professional contacts of any kind?"). Response: five-point scale ranging from "every day" to "once a year or never."

Stages of collaboration (n = 5)

The literature describes collaboration as a dynamic process, and not a static state, such that partnerships have also been described in terms of their evolutionary *stage* at the time it is studied.[9,12,36,47,48] A consensus appears to be formed among the papers included in this review that collaboration proceeds through distinct stages of formation, implementation, maintenance over time. Reilly added a precursor to formation, during which problems and a potential solution is identified, as well as succeeding stage to maintenance, during which the initial problem identified is already resolved.[47] Tseng et al. proposed the inclusion of two intermediate steps between formulation and implementation, during which plans are formulated (which he termed conceptualization stage, and which can be conceived as being equivalent to Reilly's preliminary step of problem and solutions identification) and the planned activities with agency policies (development stage) are aligned.[48]

Levels of collaboration (n = 4)

Collaboration can occur at two different *levels*.[8,9,23,46] Service-level collaboration is primarily directed at improving the provision of services at the provider-client interface, and includes such activities as the cross-training of staff, case management, and joint client assessment. By contrast, system-level collaboration is focused on improving the administration of the organization, as well as policy formulation and implementation. Fletcher et al. noted a transition in collaboration initiatives in the US from system-level in the 1970s to service-level after.[9] Note that system-level collaboration corresponds to activities focused on the previously mentioned administration and planning elements, whereas service-level collaboration is focused on service delivery initiatives.

Table 3. Comparisons of degrees of collaboration

Konrad[32]	Ahgren and Axelsson[44]	Claiborne and Lawson[27]	Addiction and Mental Health Collaborative Project Steering Committee[23]
Information sharing and communication: "very informal relationship in which entities share general information about programs, services, and clients. Communication may or may not occur on a regular basis and may differ depending on the functions and authority levels of the staff involved" **Cooperation and coordination**: " still largely informal, representing loosely organized attempt by autonomous agencies and programs to work together to change procedures of structures to make all affected programs more successful" **Collaboration**: " usually formalized, but could still operate informally (at least for a brief period). Activities at this level are shared; still-autonomous agencies and programs work together as a whole with a common goal, product, or outcome" **Consolidation**: "A consolidated system is often represented as an umbrella organization with single leadership in which certain functions (usually administrative) are centralized, but line authority is retained by categorical divisions" **Integration**: "A fully integrated activity or system has a single authority, is comprehensive in scope, operates collectively, addresses client needs in an individualized fashion, and is multipurpose and cross-cutting."	**Full segregation**: "a zero point […], which is the absence of any form of integration between services or units" **Linkage**: "takes place between existing organisational units. It aims at an adequate referral of patients to the right unit at the right time and good communication between the professionals involved in order to promote continuity of care." **Coordination in networks**: "a more structured type of integration, but it still operates largely through existing organisational units. The aim is to coordinate different health services, to share clinical information, and to manage the transition of patients between different units." **Cooperation:** "a form of coordination where network managers are appointed to improve the contacts between the organisational units involved, but these units are still quite independent." **Full integration**: "implies that resources of different organisational units are pooled in order to create a new organisation. The aim is to develop comprehensive services attuned to the needs of specific patient groups.	**Communicating**: "Entails developing formal and informal structures, technologies, and processes for sharing information with external constituencies" **Connecting**: "Entails the development of formal bridging and linking structures, technologies, and processes, including the designation of linkage agents who serve as bridge-builders, boundary crossers, and go-betweens." **Cooperating**: "Involves individuals and groups who agree to cross jurisdictional boundaries in order to respond to each other's ' requests, oftentimes relying on new connections and communications mechanisms." **Consulting**: "When individuals and groups are involved, it entails voluntary exchanges of information involving expert assistance and informal counsel. When organizations are involved, this often means gaining approval (e.g., getting the "go ahead" and receiving endorsements), also signaling overlapping interests, dependent relations, the quest for legitimacy, and risk-reduction strategies." **Coordinating**: "Involves groups (teams) and organizations that rely on, or develop, a division of labor as well as joint decision-making procedures. Interorganizational alignment mechanisms must be developed for orchestrating, synchronizing, and harmonizing specialized efforts (e.g., shared intake forms, shared assessment procedures), thereby increasing transaction costs. Norms of reciprocity, interpersonal trust, and shared language may develop." **Co-locating**: "Moving people to the same place and perhaps designating and creating a "host organization" to enable face-to-face communication, improve coordination, and facilitate community building. Where social and health service providers are involved, agencies may "loan" staff to enable integrated services and so-called 'one-stop shopping.'" **Community building**: "Entails social integration mechanisms aimed at interdependent relations (e.g., awareness of identical needs, mutual interests, and common goals). It requires norms of reciprocity, social trust, and supportive settings for interactions. It results in a collective identity, consensus, and the capacity for collective action." **Contracting**: "Involves the development of formal, legal agreements; these designate mutual obligations and responsibilities, performance expectations and requirements, resource flows, operating rules, procedures for seeking redress, and both criteria and processes for terminating the relationship."	**Effective communication**: "Transmitting relevant information about individuals and programs in a timely, legible, relevant and understandable manner, including through electronic records." **Consultation**: "Mental health and addiction professionals provide advice, guidance and follow-up to other service providers to supplement the care and support of their clients and families while sharing ongoing responsibility of care. Alternatively, other service providers offer advice to specialist service providers on the management of medical, psychosocial and spiritual needs of individuals with mental health and addiction problems." **Coordination**: "Coordination of care plans (including discharge plans) and clinical activities (including screening, assessment, treatment and support planning) to avoid duplication, use resources efficiently and help transition people to the services they require. Coordination can also include inter-professional educational activities such as joint presentations, site visits, cross-training and webinars." **Co-location**: "Mental health and addiction professionals working on location in other service delivery settings or, alternatively, the placement of other service providers within mental health and addiction services to help address physical, psychosocial and spiritual needs of people using those services. **Integration:** A single service or clinical team that brings together mental health, addiction, primary care and other relevant professionals for the purpose of shared planning of care and decision-making, documentation in a common or shared medical record, and collaborative intervention activities. This interdisciplinary clinical team can be tied together as a single administrative entity or be bound by service agreements and contracts."

Table 4. Comparison of elements of collaboration

Bolland and Wilson[24]	Konrad[32]	Reilly[47]	Wenzel et al.[37]	Claiborne and Lawson[27]	Centers for Disease Control and Prevention[26]	He[10]
Service delivery	Service delivery system or model	Process	Case management			
			Joint assessment of clients			
			Joint planning of client service goals			
			Client referrals			
			Cross training of staff			Interdisciplinary training
			Staff meetings			
						Co-location of staffs
Administration	Partners	Membership		Conveners		
	Stakeholders					
	Governance and authority	Structure		Governance system	Jointly developed structure	Joint committees
				Linkage agents, communications systems, interorganizational management teams	Mutual authority and accountability for success	
			Accommodation of practice standards			
			Mutual sensitivity to concerns of the other agency or program	Shared language		
				Conflict resolution processes, norms, linkage agents		
					Shared responsibility	
	Financing	Resources	Resource sharing		Sharing of resources and rewards	Shared budget for collaboration
	Outcomes and accountability	Process				
	Information systems and data management		Sharing of information about clients	Information management and decision-making system		
	Licensing and contracting					
Planning	Target population	Central purpose				
	Goals			Plan and asset map	Mutual relationships and goals	
	Program policy and legislation		Documentation of relationships			Formal agreements to collaborate
	Planning and budgeting	Process		Coherent plan/design for assigning lead responsibility and accountability		

Types of collaboration (n = 1)

Lastly, He proposed that examining the *types of collaboration* may also be worthwhile, noting the typical difference between what is written in formal documents and what is actually practiced.[10] She referred to joint initiatives that are limited to policies or what is written on paper as symbolic type of collaboration, while those that are translated to actual practice are called substantive collaboration.

DISCUSSION

Summary of evidence

This research aimed to synthesize the definition, conceptualization, and theorization of collaboration. A review of 33 papers retrieved through database and citation searches showed that there were 11 terms and 19 conceptual definitions used by authors to describe the collaboration in the drug treatment and rehabilitation field. Two distinctive categories of theories and five means of conceptualization of collaboration have been used to understand collaboration. Some insights and challenges deserve our deliberation when searching for definition and conducting conceptualization and theorization of interagency collaboration in the drug rehabilitation field.

Conceptual definition of collaboration

The variety in terminology and definition for collaboration depending on authors posed a challenge in the synthesis or comparison of research on this topic. The reason is the possibility that scholars refer to different phenomena, or even aspects of the same phenomenon, when presenting findings for a particular research. This challenge was further compounded by the fact that not all published papers explicitly stated their definition of collaboration, which may be partially attributed to space constraints or even the writing style in scholarly publications. Another reason is the possibility of an accepted definition proposed by experts or regulatory agencies within certain jurisdictions or disciplines (e.g., definitions by the US Centers for Disease Control and Prevention[26] and Canadian Collaborative Working Group on Shared Mental Health Care[23]). Despite the variety in nomenclature and definition, this review was able to identify four that were shared across researchers and authorities. These elements could serve as a starting point for describing and comparing initiatives that have not been formally labelled as collaboration, but which nonetheless share these attributes.

Operational definition of collaboration

A few observations can be made with reference to operational definition. First, only one of the eight papers[28] included in the current review used a qualitative approach in measuring collaboration, as the remainder measured collaboration using survey instruments. Of the latter, only one utilized a validated measure;[36] three constructed a measure of collaboration from existing survey questions developed for another purpose,[9–11] while the rest[13–37] developed measures *de novo*. Despite the notable differences in nomenclature and number of items included in the measure, all papers relied on self-reports by representatives of collaborating organizations on their activities in relation to the partnership; i.e., the measures were based on the self-reports of the collaboration elements. None of the researchers cited in this review attempted to examine documentation, such as reviewing formal agreements between organizations, which would have provided a considerably objective assessment of certain aspects of collaboration.

Theories on collaboration

Resource-based and institutional theories are the predominant models used to explain the formation of collaboration. Resource-based theory is focused on tangible gains from collaboration,[30,38] whereas institutional theory highlights the intangible products of collaboration.[9,30,34] Although these two theories have been used separately to explain collaboration, Smith and Mogro-Wilson,[34] citing Van De Ven[39], suggested that the two explanatory theories are not mutually exclusive but can actually coexist. The concept of partnership synergy, which is the generation of a competitive advantage that is greater than what each partner unit can produce on its own.[33,35] may help explain the linkage between the two theories. However, the empirical evidence to support this assertion remains lacking in the literature and may be an avenue for further inquiry.

Lastly, note that only two papers[10,34] had an alignment of conceptual definition, operational definition, and theory; and another two papers[9,11] only had alignment with respect to operational definition and theory. Evidently, the non-articulation of any of these elements in the other included papers may be attributed to the authors' writing style or journal guidelines, and do not necessarily mean that they were not considered by the authors in the course of their research.

Conceptualization of collaboration

Five aspects of collaboration (i.e., degrees, elements, stages, levels, and type) were identified in this review. Although these aspects were described in the majority of the literature as separate entities, there have been proposals to use multiple dimensions when describing or assessing a collaborative.[10,32,46] Given the dynamic nature of the collaborative process, it is possible that collaboratives may manifest different degrees, levels, and types, and involve different elements, across the stages of collaboration. That is, collaboration may be conceptualized at one point, in which case only degrees, elements, levels, and/or types will be described or assessed, or over a historical period, in which case it may be instructive to add a dimension of stages. Such a combination of aspects has not been encountered in the literature reviewed for this research.

Implications for research, policy, and practice

From a research perspective, apart from encouraging scholars to state in their papers and research reports the preferred terminology for collaboration, future research may examine how collaboration is conceived in different contexts (e.g., personal, local and policy contexts), as well as by different participating agencies, groups or sectors within the same area. A possibly beneficial endeavour is to develop a new term as *collaboration* and *integration*, which are the two most commonly cited terms encountered in this review, may be confused, and even interchanged, with the different degrees of collaboration. Although the operationalization of collaboration may vary between projects, researchers may wish to consider other means apart from self-reports by participating organizations. For example, review of documentation and direct observation may provide complimentary information that may otherwise not be properly captured by self-reports alone. Lastly, the possibility of assessing the different aspects of collaboration simultaneously within one research should be explored, instead of examining one or two at any given point in time. Although this undertaking will definitely entail a markedly complex design, it nonetheless may provide an extensive and multi-dimensional perspective on collaboration that, in turn, may prove to be beneficial to policymakers and implementers.

Taking cue from initiatives in North America[23,26], countries or jurisdictions that have, or are attempting to implement, collaborative initiatives – whether in the drug rehabilitation or other fields – may wish to consider formalizing a term and definition *collaboration* as it applies to initiatives within their territories. Moreover, adopting a list of dimensions that partnerships should manifest, whether in the form of structure or activities, to be considered as a collaborative may help evaluate these arrangements.

Limitations and strengths

This review has some potential limitations. First, selection bias is a possibility in this review because of the exclusion of non-English language publications owing to pragmatic considerations. A partial mitigation measure is the sensitive search strategy employed, which aimed for inclusion at the beginning of the search, as well as citation searching. Given that data extraction was undertaken solely by the lead author, information bias through misclassification is also a possibility. At least two readings of paper prior to extraction, and another round of reading after data extraction but prior to analysis, were performed to reduce the probability of such a bias.

To our knowledge, this search is one of the first systematic reviews of interagency collaboration in drug treatment and rehabilitation field despite limitations. This review identified four common elements of interagency collaboration (i.e., participants, partners, process, purpose). Moreover, this review critically reviewed and discussed five means of conceptualization of collaboration (i.e., degrees, elements, levels, stages, type). Interagency collaboration involves complex interactive components. The syntheses of knowledge in this review facilitate a common language among different parties for interagency collaboration and provide a springboard for theoretically informed collaborative interventions in drug rehabilitation.

CONCLUSION

Despite the use of various terms and definitions in the literature, collaboration can be understood in terms of the four elements of *participants*, *partners*, *process*, and *purpose*. Theorization on collaboration can be furthered through the examination of the combination of *resource* and *institutional theories* as explanatory models for collaboration. Scholarship in the field can also benefit from studies that conceptualize collaboration not only cross-sectionally through the description of *degrees*, *elements*, *levels*, and *type*, but also historically by considering the *stages* dimension of collaboration.

Statement of Authorship

Both authors participated in the conceptualization and design, data collection, data analysis, manuscript writing, and approval of the final submitted manuscript.

Author Disclosure

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APPENDIX

Table 1. Search terms used for this scoping review

Database	Search terms
MEDLINE (via EBSCOhost)	((MH "Substance Abuse Treatment Centers") OR (MH "Substance-Related Disorders/RH/TH") OR (TX "drug rehabilitation" OR TX "drug treatment" OR TX "addiction treatment" OR TX "substance abuse treatment" OR TX "substance abuse rehabilitation")) AND ((MH "Intersectoral Collaboration") OR (TX (collaborate OR collaboration OR collaborative) OR TX partnership OR TX cooperation OR TX (linking OR linkage) OR TX coalition))
CINAHL Complete (via EBSCOhost)	((MH "Drug Rehabilitation Programs") OR (MH "Substance Use Rehabilitation Programs") OR (TX "drug rehabilitation" OR TX "drug treatment" OR TX "addiction treatment" OR TX "substance abuse treatment" OR TX "substance abuse rehabilitation")) AND ((MH "Collaboration") OR (MH "Consortia") OR (MH "Coalition") OR (TX (collaborate OR collaboration OR collaborative) OR TX partnership OR TX cooperation OR TX (linking OR linkage) OR TX coalition))
Embase	('drug addiction therapy'/exp OR 'drug dependence treatment'/exp OR 'dehabituation, drug' OR 'drug abuse treatment' OR 'drug dehabituation' OR 'drug dependence treatment' OR 'drug rehabilitation program' OR 'drug rehabilitation programme' OR 'substance abuse treatment centers' OR 'substance abuse treatment' OR 'substance abuse rehabilitation') AND ('collaboration'/exp OR 'cooperation'/exp OR 'partnership'/exp OR linkage OR linking OR coalition)
PsychINFO (via ProQuest)	((MAINSUBJECT.EXACT.EXPLODE("Addiction Treatment") OR MAINSUBJECT.EXACT.EXPLODE("Substance Use Treatment")) OR (ab("drug rehabilitation") OR ti("drug rehabilitation") OR ab("drug treatment") OR ti("drug treatment") OR ab("addiction treatment") OR ti("addiction treatment") OR ab("substance abuse treatment") OR ti("substance abuse treatment") OR ab("substance abuse rehabilitation") OR ti("substance abuse rehabilitation"))) AND ((MAINSUBJECT.EXACT.EXPLODE("Collaboration") OR MAINSUBJECT.EXACT.EXPLODE("Cooperation") OR MAINSUBJECT.EXACT.EXPLODE("Coalition Formation")) OR (ab(collaborate OR collaboration OR collaborative) OR ti(collaborate OR collaboration OR collaborative) OR ab(partnership) OR ti(partnership) OR ab(cooperation) OR ti(cooperation) OR ab(linking OR linkage) OR ti(linking OR linkage) OR ab(coalition) OR ti(coalition)))

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