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REVIEW

Training transfer: a systematic review of the impact of inner setting factors

Carrie B. Jackson[1] · Laurel A. Brabson[1] · Lauren B. Quetsch[1] · Amy D. Herschell[1]

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Abstract
Consistent with Baldwin and Ford's model (Pers Psychol 41(1):63–105, 1988), training transfer is defined as the generalization of learning from a training to everyday practice in the workplace. The purpose of this review was to examine the influence of work-environment factors, one component of the model hypothesized to influence training transfer within behavioral health. An electronic literature search guided by the Consolidated Framework for Implementation Research's inner setting domain was conducted was conducted on Medline OVID, Medline EMBASE, and PsycINFO databases. Of 9184 unique articles, 169 full-text versions of articles were screened for eligibility, yielding 26 articles meeting inclusion criteria. Results from the 26 studies revealed that overall, having more positive networks and communication, culture, implementation climate, and readiness for implementation can facilitate training transfer. Although few studies have examined the impact of inner setting factors on training transfer, these results suggest organizational context is important to consider with training efforts. These findings have important implications for individuals in the broader health professions educational field.

Keywords Training · Implementation science · Inner setting · Evidence-based treatments

Implementation within context

The behavioral health field has experienced significant improvements in recent decades with an increasing number of studies devoted to the implementation of evidence-based treatments (EBTs) in community settings (Kazdin 2008). Behavioral health refers to a wide range of mental health and substance abuse services delivered in a variety of settings, including primary care, community mental health clinics, independent providers, hospitals, and schools (Reiter et al. 2018; SAMHSA 2017). Research has now begun to focus on identifying contextual influences (i.e., organizational and individual factors) that facilitate the implementation of EBTs within these various settings (Novins et al. 2013). Several reviews and conceptual frameworks have highlighted the need to examine implementation processes in relation to the system in which they are embedded (Glisson and Williams

✉ Carrie B. Jackson
cbjackson@mix.wvu.edu

[1] West Virginia University, Morgantown, WV, USA

2015; Wandersman et al. 2012). Understanding the complex relationships between contextual factors and implementation is an important step in improving the uptake of EBTs in usual care.

Training transfer

One factor central to the successful implementation of an innovation within an organization is training transfer, or the "degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job" (Baldwin and Ford 1988, p. 63). Importantly, while factors impacting the implementation process have previously been explored in the literature, none have yet examined how key factors impact training transfer in behavioral health settings. Training transfer problems are significant for organizations participating in cost- and time-intensive trainings, given that the costs incurred by trainings may not improve training transfer (e.g., use of an intervention or client outcomes; Blume et al. 2010; Grossman and Salas 2011). While training outcomes are typically evaluated by measuring changes in therapist knowledge and skill, examining workplace behavior following training may provide a more direct analysis of the success of a training (Beidas and Kendall 2010).

Baldwin and Ford's training transfer model (1988) hypothesized that the transfer process occurs due to three training-input factors: training design, individual trainee characteristics, and work-environment factors. Training design includes the content of training and components involved in a training protocol (e.g., controlled experimental settings vs. organizational training programs). Individual trainee characteristics include a trainee's demographics, skills, and personality (e.g., age, ability, level of motivation, flexibility). Lastly, work-environment factors, commonly considered organizational factors, include organizational climate, supervisory support, and opportunities to utilize newly learned skills on the job (e.g., perceptions of support for innovative behavior, performance appreciation, attitudes of boss).

Training input factors in behavioral health settings

Considerable progress has been made in studying the training design and individual trainee characteristic components of training-input factors (e.g., Harned et al. 2013; Herschell et al. 2010). For example, research on training design suggests that intensive multi-component trainings are more effective in improving therapist behavior and client outcomes than brief workshops (Beidas et al. 2012; Herschell et al. 2010). Additional research has indicated that trainee characteristics, such as years of experience, attitudes towards EBTs, and licensure affect transfer (Harned et al. 2013). Despite consistent findings related to training design and trainee characteristics, studies within the field of behavioral health have presented conflicting evidence on work-environment factors. While several studies have provided support for these factors at promoting training transfer (e.g., Beidas et al. 2014; Ditty et al. 2015), additional research has concluded that work-environment factors are of little importance in comparison to individual trainee characteristics (Harned et al. 2013). Additionally, a review by Novins et al. (2013) concluded that organizational factors require more research to understand their role in the implementation process. Although prior research has primarily focused on the importance of training design and individual

trainee characteristics, examining work-environment factors is important for understanding how the training transfer process may occur within a given organization.

Consolidated framework for implementation research

The Consolidated Framework for Implementation Research (CFIR; Damschroder et al. 2009) has been used by researchers in an effort to elucidate the study of implementation constructs and to more adequately capture the multidimensional nature of implementation science (Damschroder et al. 2009; Damschroder et al. 2011; Damschroder and Lowery 2013). Although several conceptual models exist that could have been used to guide the current review (e.g., Aarons et al. 2011; Powell et al. 2015), the CFIR was chosen as it provides a comprehensive, consistent taxonomy and clearly defined constructs which aid in synthesizing implementation studies, and identifying gaps within the current literature. Additionally, in a systematic review of instruments assessing CFIR's domains, Lewis et al. (2015) identified measures for the inner setting domain that have demonstrated various levels of psychometric evidence. Therefore, the current review was guided by the CFIR model and accompanying instrumentation information from Lewis et al. (2015) in order to interpret the results of included studies included.

The inner setting domain, one of the primary domains included in the CFIR, encompasses the work-environment factors hypothesized to influence training transfer and the implementation process. The inner setting domain consists of "structural, political, and cultural contexts through which the implementation process will proceed" (Damschroder et al. 2009, p. 5). Five constructs are included within the inner setting domain: structural characteristics, networks and communications, culture, implementation climate, and readiness for implementation (Damschroder et al. 2009). Table 1 provides definitions of each of these inner setting constructs and their sub-constructs. Therefore, the current paper explicitly examines each of these constructs in an effort to adequately capture the work-environment factors.

Current review

Although several reviews have evaluated the inner setting domain, reviews have not yet examined the relation of these constructs to training transfer (Novins et al. 2013; Powell et al. 2014). Additionally, given the inconsistent findings from previous research on the inner setting domain, the goals of this systematic review are to understand how inner setting factors influence training transfer in behavioral health settings, and to identify gaps in the current literature that should be addressed.

Method

Search strategy

A systematic review was conducted through an initial search of Psychological Abstracts (PsycINFO), Medline EBSCO, and Medline OVID Medline databases. The search terms and strategy were developed by all authors. Search terms based upon the

Table 1 Consolidated framework for implementation research inner setting constructs and definitions

Inner setting construct	Definition
Structural characteristics	Age, maturity, and size
	Social architecture, or the clustering of staff members into work groups
Networks and communication	Composition and quality of relationships among individual staff members and teams across hierarchies
Culture	Norms, values, and basic assumptions that govern daily operations
Implementation climate	Capacity that an intervention will be fully supported and rewarded within an organization
	Sub-constructs
	Tension for change-unrest felt by staff to change the current organizational structure
	Compatibility-perceived fit between administrator values and the integration of a program within an existing agency structure
	Relative priority-collective importance of implementation
	Organizational incentives and rewards-positive consequences (e.g., increased wages)
	Goals and feedback-communicating and providing feedback based on overarching goals
	Learning climate-team-oriented atmosphere in which all staff are valued
Readiness for implementation	Tangible and immediate indicators of organizational commitment for implementation
	Sub-constructs
	Leadership engagement-commitment of leaders within an organization
	Available resources-money, training, education, time to support implementation
	Access to information and knowledge-Information about incorporating an innovation is available

inner setting construct, as well as related terms were included. Additionally, the search terms were constricted to the field of behavioral and mental health to allow the search to be more manageable and increase its relevance to the population of interest. The search string utilized was: (readiness for implementation OR structural characteristics OR networks and communication OR social networks OR organizational culture OR implementation climate OR inner setting OR inner setting factors OR readiness for change OR organizational climate) AND (behavioral health OR mental health).

Following the search, titles and abstracts were first screened for eligibility by the first author, who is a doctoral student. When articles could not be excluded on the basis of a title and abstract screen, full-text versions of the articles were obtained. All of the potentially relevant articles identified were then screened for inclusion and exclusion criteria by two of the authors, both of whom are doctoral students. When there was disagreement between the authors on if an article met inclusion/exclusion criteria, a consensus meeting took place, and disagreements were decided by an independent third author with doctoral-level qualifications.

Inclusion criteria

To be incorporated in the current paper, peer-reviewed articles had to include (a) an inner setting construct, (b) participants who identified as mental health staff, child welfare workers, or substance abuse service providers, (c) an outcome variable specifically measuring generalization of learning to the workplace (e.g., adoption, fidelity, self-reported use), (d) primary data, and (e) English language. Articles were excluded if (a) they were unpublished theses or dissertations, abstracts, or review papers, or (b) there was insufficient information to determine whether inclusion/exclusion criteria were met. For the current review to be as comprehensive as possible, the authors did not include a date restriction on the review.

Coding of studies

The coding procedures were developed by CJ, LB, LQ, and AH. A data extraction form was developed by CJ, LQ, and LB. The included studies were divided equally by CJ and LB and were then coded. Interrater reliability was not coded, but the authors met regularly to discuss any questions and discrepancies related to coding.

The included studies were coded according to inner setting factor (e.g., implementation climate), measurement of inner setting factor, and training transfer outcome by two of the authors. Inner setting factor was coded based on the article's description of the construct studied as it aligns with the CFIR definition, along with information about the assessment instrument used to measure this construct. The measurement of the addressed inner setting factors was coded according to the assessment instrument identified by the authors. Prior to the review process, the authors discussed training transfer outcomes that captured generalization of learning to the workplace (i.e., knowledge, use, adherence to a treatment). Service quality and client outcomes were also included, as they serve as proxies for a provider's direct behavior. A finite set of training transfer outcomes was not established prior to the review process, to allow for flexibility in outcomes examined; however, the authors met regularly to discuss whether the outcomes within a study qualified as being relevant to training transfer.

Results

Figure 1 displays the results of the literature search process. The initial search yielded 9184 articles, from which 5736 titles and abstracts were screened, 169 full-text versions of articles were examined, yielding 26 articles meeting inclusion criteria.

Several articles included in the review addressed multiple inner setting constructs within the same study: six articles focused on *structural characteristics* (Bride et al. 2011; Ditty et al. 2015; Nelson and Steele 2007; Schoenwald et al. 2003, 2008, 2009), three on *networks and communication* (Cook et al. 2015; Ditty et al. 2015; Hanbury 2013), six on *culture* (Bonham et al. 2014a, b; Bride et al. 2011; Glisson et al. 2008; Glisson and Green 2011; Green et al. 2014; Patterson Silver Wolf 2015), eight on *implementation climate* (Cook et al. 2015; Glisson and Hemmelgarn 1998; Muilenburg et al. 2014; Schoenwald et al. 2003, 2008, 2009; Taxman et al. 2008), and 13 on *readiness for implementation* (Adler et al. 2014; Asgary-Eden and Lee 2012; Beidas et al. 2014; Bonham et al. 2014a, b;

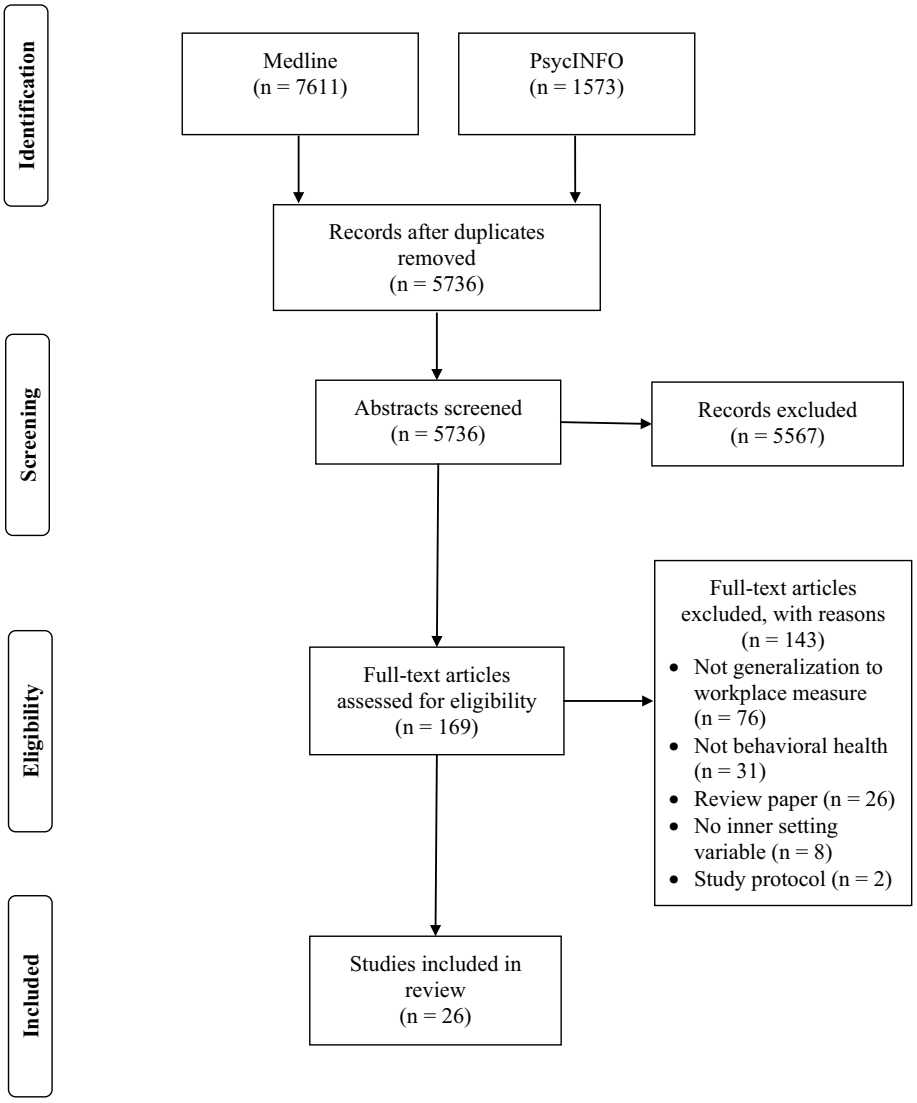

Fig. 1 PRISMA diagram depicted systematic search process

Cook et al. 2015; Gifford et al. 2015; Green et al. 2014; Greener et al. 2007; Hamblen et al. 2015; Harned et al. 2013; Lewis and Simons 2011; Lundgren et al. 2013; Mancini et al. 2009). These studies examined a variety of training transfer outcomes with several studies including more than one training transfer outcome. Fifteen studies analyzed the use of an intervention, eight assessed fidelity, five evaluated client outcomes, three examined service quality, and two focused on penetration. Table 2 presents the identified articles and their inner setting construct and training transfer outcomes. Table 3 details how each inner setting construct was measured in the included studies, according to the article's description of measures.

Table 2 Inner setting constructs and training transfer outcomes measured across articles

Article	Inner setting construct					Outcomes				
	Structure	Networks and communication	Culture	Implementation climate	Readiness for implementation	Client outcomes	Fidelity	Penetration	Service quality	Use
Adler et al. (2014)					X					X
Asgary-Eden and Lee (2012)					X		X			X
Beidas et al. (2014)							X[a]	X		
Bonham et al. (2014a, b)			X		X					X
Bride et al. (2011)	X		X							X
Cook et al. (2015)		X		X	X					X
Ditty et al. (2015)	X	X			X			X		X
Gifford et al. (2015)				X	X					X
Glisson and Green (2011)			X			X[a]				
Glisson and Hemmelgarn (1998)				X		X			X[a]	
Glisson et al. (2008)			X							X
Green et al. (2014)			X		X				X	
Greener et al. (2007)					X				X	
Hamblen et al. (2015)					X					X
Hanbury (2013)		X		X						X
Harned et al. (2013)					X		X[a]			X
Lewis and Simons (2011)					X					X
Lundgren et al. (2013)					X		X			
Mancini et al. (2009)					X		X[a]			
Muilenburg et al. (2014)				X						X
Nelson and Steele (2007)	X						X			
Patterson Silver Wolf (2015)			X							X[a]
Schoenwald et al. (2003)	X			X		X	X			

Table 2 (continued)

Article	Inner setting construct					Outcomes				
	Structure	Networks and communication	Culture	Implementation climate	Readiness for implementation	Client outcomes	Fidelity	Penetration	Service quality	Use
Schoenwald et al. (2008)	X			X		X	X			
Schoenwald et al. (2009)	X			X		X	X			
Taxman et al. (2008)				X						X[a]

[a]Indicates this outcome was measured by an independent third rater

Table 3 Measurement of inner setting constructs across included studies

Inner setting construct	Measure	Articles
Structure	Participation in decision making (Hage and Aiken 1967); hierarchy of authority (Hall 1963); procedural and rule specification (Hall 1963)	Schoenwald et al. (2003)
		Schoenwald et al. (2008)
		Schoenwald et al. (2009)
	Study-developed measure	Bride et al. (2011)
		Ditty et al. (2015)
		Nelson and Steele (2007)
Networks and communications	Organizational readiness for change-cohesion and communication (Lehman et al. 2002)	Ditty et al. (2015)
	Study-developed measure	Cook et al. (2015)
		Ditty et al. (2015)
		Hanbury (2013)
Culture	Children services survey	Bonham et al. (2014a, b)
		Green et al. (2014)
	Organizational social context (Glisson et al. 2008)	Glisson et al. (2008)
		Glisson and Green (2011)
		Patterson Silver Wolf (2015)
	Study-developed measure	Bride et al. (2011)
		Taxman et al. (2008)
Implementation climate	Psychological climate questionnaire	Schoenwald et al. (2003)
		Schoenwald et al. (2008)
		Schoenwald et al. (2009)
	Study-developed measure	Cook et al. (2015)
		Muilenburg et al. (2014)

Table 3 (continued)

Inner setting construct	Measure	Articles
Readiness for implementation	Multifactor leadership questionnaire	Bonham et al. (2014a, b)
		Green et al. (2014)
	Organizational readiness for change (Lehman et al. 2012)	Asgary-Eden and Lee (2012)
		Beidas et al. (2014)
		Gifford et al. (2015)
		Greener et al. (2007)
		Lewis and Simons (2011)
		Lundgren et al. (2013)
	Study developed measure	Adler et al. (2014)
		Cook et al. (2015)
		Hamblen et al. (2015)
		Harned et al. (2013)
		Mancini et al. (2009)

Structural characteristics

Structural characteristics include "the social architecture, age, maturity, and size of an organization" (Damschroder et al. 2009, p. 7). Six articles included in the current review examined various structural characteristics (Bride et al. 2011; Ditty et al. 2015; Nelson and Steele 2007; Schoenwald et al. 2003, 2008, 2009). Structural characteristics were measured according to organization type (e.g., outpatient), clinical setting (e.g., university), and size of organization through the Participation in Decision Making measure (Hage and Aiken 1967), Hierarchy of Authority measure (Hall 1963), Procedural and Rule Specification measure (Hall 1963), and study-developed measures. The included articles assessed a variety of training outcomes including fidelity, self-reported use, penetration, and client outcomes. Five of the six included studies did not find significant associations between structural characteristics and the aforementioned outcomes. Three studies noted that, while structure was related to client outcomes, this association was no longer significant when therapist fidelity was included in the model. Additionally, structure was not significantly related to fidelity in these studies (Schoenwald et al. 2003, 2008, 2009). One study found that structural characteristics such as a large team size and stand-alone programs reported significantly higher use of Dialectical-Behavior Therapy than organizations with smaller team sizes and teams nested within an organization (Ditty et al. 2015).

Networks and communication

Networks and communications is the CFIR inner setting factor that addresses the composition and quality of relationships among individual staff members and teams, and across hierarchies (Damschroder et al. 2009). Three articles in the current review analyzed networks and communication (Cook et al. 2015; Ditty et al. 2015; Hanbury 2013). Two of the included articles assessed the quality of networks (Cook et al. 2015; Ditty et al. 2015), while one of the articles assessed the quantity of networks (e.g., number of contacts with team members; Hanbury 2013). Study-developed measures and the Organizational Readiness for Change-Cohesion and Communication subscale (Lehman et al. 2002) were utilized to identify if networks and communication had an effect on self-reported use of an intervention. These studies found quantitative evidence that quantity and quality of networks and communication were significantly associated with self-reported use. Qualitative evidence further supported the importance of strong teams and communication skills in influencing use of an intervention, with individuals reporting on the importance of relying on team members who also utilize the newly adopted intervention (Cook et al. 2015; Ditty et al. 2015).

Culture

Organizational culture is defined as the "norms, values, and basic assumptions" that govern daily operations (Damschroder et al. 2009, p. 8). Six articles in the current study examined organizational culture (Bonham et al. 2014a, b; Bride et al. 2011; Glisson and Green 2011; Glisson et al. 2008; Green et al. 2014; Patterson Silver Wolf 2015). Organizational culture was measured utilizing the Child Services Survey (Glisson 2002), the

Organizational Social Context measure (Glisson et al. 2008), and study-developed measures. The included studies assessed several training transfer outcomes including client outcomes, service quality, and use. Five of the six studies found that a positive organizational culture was associated with greater training transfer according to client outcomes, service quality, or use (Bonham et al. 2014a, b; Bride et al. 2011; Glisson and Green 2011; Glisson et al. 2008; Green et al. 2014). Additionally, one study found that positive culture was associated with greater long-term transfer, with higher sustainability rates (Glisson et al. 2008). One study also found that culture mediated the relationships between leadership, an aspect of readiness for implementation, and service quality (Green et al. 2014). While a majority of these studies found that culture was related to training transfer, one study did not find a significant relation between culture and use of an alcohol screening and substance use intervention (Patterson Silver Wolf 2015).

Implementation climate

Implementation climate is the capacity that an intervention will be fully supported and rewarded within an organization (Damschroder et al. 2009). Refer to Table 1 for information about implementation climate's sub-constructs including tension for change, compatibility, relative priority, organizational incentives and rewards, goals and feedback, and learning climate. The current review identified seven studies that examined implementation climate (Cook et al. 2015; Glisson and Hemmelgarn 1998; Muilenburg et al. 2014; Schoenwald et al. 2003, 2008, 2009; Taxman et al. 2008). Implementation climate was assessed using the Psychological Climate Measure (James and Sells 1981) and study-developed measures. These studies also examined several training transfer outcomes such as use, fidelity, and service quality. In all of these studies, implementation climate was significantly related to at least one of the training transfer outcome measures examined. For example, organizations with a positive implementation climate (e.g., high degree of compatibility, incentives and rewards) reported greater use, fidelity, and service quality. In three of these studies, implementation climate was not only related to fidelity, but also to client outcomes (Schoenwald et al. 2003, 2008, 2009). Qualitative evidence further supported the compatibility sub-construct of implementation climate, with providers perceiving the degree of fit of an intervention as an important factor in its use (Cook et al. 2015).

Readiness for implementation

Readiness for implementation, according to the CFIR, encompasses "tangible and immediate indicators of organizational commitment to its decision to implement an intervention" (Damschroder et al. 2009, p. 9). This review identified 13 articles examining the readiness for implementation construct that met inclusion and exclusion criteria (Adler et al. 2014; Asgary-Eden and Lee 2012; Beidas et al. 2014; Bonham et al. 2014a, b; Cook et al. 2015; Gifford et al. 2015; Green et al. 2014; Greener et al. 2007; Hamblen et al. 2015; Harned et al. 2013; Lewis and Simons 2011; Lundgren et al. 2013; Mancini et al. 2009). Readiness for implementation was measured using the Multifactor Leadership Questionnaire (Bass and Avolio 1995), Texas Christian University-Organizational Readiness for Change (Institute of Behavioral Research, 2009), study-developed measures, and qualitative methods. Training transfer outcomes included fidelity, service quality, and use. Eleven of these

articles found evidence in support of readiness for implementation on at least one training transfer outcomes, while two articles (Beidas et al. 2014; Cook et al. 2015) found that readiness for implementation was not related to training transfer. These articles studied several of the sub-constructs of readiness for implementation. The included studies cited training, adequate resources, adequate time, supervision, and leadership as being important factors related to training transfer. Qualitative results also supported these findings indicating that having available educational resources, such as treatment manuals, was important to implementation (Bonham et al. 2014a, b).

Discussion

The purpose of this review was to identify inner setting factors that may influence the effectiveness of trainings in behavioral health settings. Overall, our review found that relatively little research has been conducted on the influence of work-environment factors on training transfer outcomes. Across numerous disciplines relevant to training transfer (e.g., adult learning, human resources), work-environment factors remain relatively understudied. Despite the limited literature, our review found that work-environment factors have a significant impact on training effectiveness and should be considered during training development.

Our analysis of inner setting factors led to several conclusions. Importantly, a majority of studies included in the review suggest that positive organizational characteristics may be essential to training transfer, similar to findings from other fields (Tabak et al. 2012). Across studies, having higher quality networks and communication, more positive organizational culture, implementation climate, and readiness for implementation were associated with a greater likelihood of training transfer. These results suggest that, when a clinician feels supported by their organization, they are more likely to use a newly-learned intervention. Importantly, while many training models primarily target clinicians, it may help facilitate the effects of a training by also targeting organizational factors.

Articles included in this review did not support the impact of organizational structure on training transfer. This finding suggests organizations of varying sizes and types (e.g., private practice, community mental health, hospital) may be equally likely to have providers that use newly learned skills from a training. In combination with the positive findings of this review, it may be that more changeable aspects of an organization have a greater impact than the fixed organizational structure on training transfer. Organizational interventions, such as the Availability, Continuity, Response model, have been developed to address organizational barriers by improving the fit between an intervention and the context in which it is implemented (Glisson and Schoenwald 2005). The use of such organizational interventions may be helpful in facilitating training transfer by simultaneously training direct service providers and reducing organizational barriers that prohibit the use of an intervention.

The results of this review have highlighted important measurement issues that are important to consider in the context of this review (Martinez et al. 2014). This review found that training transfer is not a commonly studied outcome, and is often measured by clinician self-report. Although training transfer may be more difficult to examine than other types of training outcomes (e.g., knowledge and skill), accurate measurement of training transfer including direct observation of behavior is particularly pertinent to implementation science. This is important given that other fields have found a disconnect between

post-training learning and actual behavior, with research suggesting that only 10% of knowledge acquired during a training is applied in the workplace (Grossman and Salas 2011). Similarly, a meta-analysis of the effectiveness of trainings found a correlation between knowledge and transfer of only .22, and that the effect sizes associated with trainings were significantly reduced when workplace behavior was used as an outcome (Arthur et al. 2003; Grossman and Salas 2011). Given data from other fields, further research in behavioral health settings should examine the concordance between measurement of post-training learning and workplace behavior as well as identify feasible measures of training transfer.

The current review has several strengths that contribute to a growing body of research on the contextual factors that influence implementation. Importantly, this review has highlighted the lack of research on inner setting factors and training transfer. Although the inner setting domain has a strong theoretical basis, this review was only able to identify 26 articles that met inclusion/exclusion criteria. Another strength of the current review is the use of the CFIR as a meta-theoretical framework to address these measurement and conceptual issues through clearly operationalized constructs (Damschroder et al. 2009). Utilizing this framework, the authors were able to identify areas of the inner setting that have previously been studied. Additionally, this review's inclusion of the measurement of inner setting factors has revealed measurement issues in this area of study that should be considered in future research.

Although this review has several strengths, it also has notable limitations. The primary limitation of this review is the overall paucity of articles meeting inclusion/exclusion criteria. The initial search yielded a large number of studies; however, many of these articles were excluded on the basis of lacking a training transfer outcome. Second, there was considerable variability in the methodological rigor of the included studies. Although we did not directly assess the rigor of the included studies, there were significant methodological flaws in many of the included studies. Specifically, a large amount of the included studies used study-developed measures which lack psychometric evidence, and self-reported measures of training transfer. More methodologically-rigorous research studies that incorporate behavioral observations and assessment instruments with adequate psychometric evidence should be used to sufficiently capture the variety of inner setting constructs defined by the CFIR. Third, while the use of the CFIR strengthened the operationalization of the constructs in the review, the CFIR is only one of several theoretical frameworks that could have been chosen. Similar to other theoretical frameworks in implementation science, the CFIR has not yet been fully established empirically (Powell et al. 2014). Further, the use of the CFIR may have constricted the results of the current review, as it was limited to the terms defined by this framework. However, utilizing the CFIR as a framework for the present review aided in understanding the current state of research.

In conclusion, the results of this review have drawn attention to an important area for further research, and the findings have important implications for organizations, trainers, and researchers involved in educating health professionals. This research is important to organizations, given that the time and money invested in trainings may not reap the expected benefits of improved provider behavior and client outcomes. Similarly, trainers may need to consider these inner setting factors prior to initiating training, and engage in efforts to improve an organization's readiness for training and implementation. As mentioned previously, the Availability, Responsiveness and Continuity intervention (ARC), which has demonstrated positive effects in supporting organizational implementation of EBTs is one method that may be beneficial to organizations (Glisson and Schoenwald 2005). If it is found that inner setting factors do significantly impact training transfer,

interventions such as ARC might be a promising mechanism to facilitate training transfer. Further addressing this gap in research may be an important step in understanding additional factors that facilitate training transfer, and ultimately in improving the training of health professionals and provision of EBTs.

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