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INTRODUCTION

The Role of Culture and Context in Developing Intervention and Prevention Programs

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Learning Objectives

The key objectives of this chapter are for readers to understand the following:

- That culture and context impact service delivery
- That culture and context are critical considerations when engaged in program design (selection), implementation (service delivery), and evaluation
- Why explicit attention to culture and context is not more widely embraced

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INTRODUCTION

This chapter introduces key terminology, provides the rationale for attending to culture and context in the development and evaluation of intervention and prevention programming, discusses implementation science and translational research, describes limitations of standard approaches, and discusses the potential role **mixed methods research (MMR)** has for addressing such limitations. The chapter concludes with a description of the content and structure of the book.

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WHY SHOULD WE ATTEND
TO CULTURE AND CONTEXT?

This book is predicated on what we believe to be a common proposition: *Context and culture matter when one attempts to influence, or assess, the behavior, thought patterns, and perceptions of others*. We begin with definitions of key constructs—context and culture.

Context refers to the specific setting or set of circumstances within which an intervention is designed, delivered, and evaluated. We conceive of context from a developmental–ecological perspective drawing on the work of Bronfenbrenner (1998, 1999[1]). Context, in Bronfenbrenner's parlance, is the *microsystem* (immediate context) in which the interventionists and participants directly interact, in this case during the delivery of the intervention. This microsystem, however, is influenced by surrounding systems as conceived in Bronfenbrenner's (1989, 1999) ecological systems theory (EST): *exosystem*, those that embody the microsystem; *mesosystem*, those that embody the relationship between ecological systems; *macrosystem*, those that embody the larger society or community and the inherent values, beliefs, norms; and *chronosystem*, those that embody historical or developmental influences. For example, delivering an intervention within a classroom requires attention to the immediate context (classroom or microsystem), the system in which the classroom is embedded (school or exosystem), other systems that have indirect influence on the interactions of teachers and students in the classroom (also exosystems, e.g., peer group, family, neighborhood), the interactions among these systems (mesosystem, e.g., school–family relationships), the larger society (macrosystem), and the historical factors (chronosystem, e.g., history of education in the community). The importance of context in intervention development and delivery has been recognized by contemporary researchers and practitioners (e.g., Burns, 2011; Ringeisen, Henderson, & Hoagwood, 2003).

Culture is defined as "shared language, ideas, beliefs, values, and behavioral norms" (Nastasi, Moore, & Varjas, 2004) or "common heritage or set of beliefs, norms and values" (U.S. Department of Health and Human Services [DHHS], 2001, p. 9) relevant to the particular context or group. We use the term **culture specific** to refer to the embodiment of "an individual's real-life

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[1] A full description of Bronfenbrenner's developmental-ecological systems theory (EST) is beyond the scope of this chapter. For more information, consult the cited references.

experiences within a given cultural context (e.g., neighborhood) and his or her understanding of those experiences" (Nastasi, Varjas, Bernstein, & Jayasena, 2000, p. 403). With regard to guiding behavior change (i.e., intervention), culture refers to "a dynamic system of meanings, knowledge and actions that provides actors collectively, interpersonally, and individually with community-legitimized strategies to construct, reflect upon, and reconstruct their world and experience, and guide behaviour" (Nastasi et al., 2015, p. 96; see also Bibeau & Corin, 1995).

We think of culture as a ubiquitous construct that can influence intervention and prevention **program** design, implementation, and evaluation, thus necessitating a need for consideration of culture throughout the process of program development (Hitchcock & Nastasi, 2011). We use the term **cultural (co-)construction** to refer to the cultural process that occurs during an intervention. Cultural co-construction has been defined as

> the process of dialogue among equal partners across class, ethnic/ racial, disciplinary, cultural, and other boundaries that integrates knowledge, values, perspectives, and methods derived from all parties, resulting in shared innovation. The co-construction of cultural and other forms of knowledge is an ongoing process that reflects the nature of participatory research and intervention development, and the more dynamic nature of the social construction. (Nastasi et al., 2015, p. 94)

Within the intervention context, co-construction refers to the interaction or dialogic process that occurs between the interventionists (health providers, therapists, teachers/educators, etc.) and the recipients (patients, clients, students, etc.). Thus, when talking of the *cultural process* within intervention development and evaluation, we prefer the term *cultural co-construction* to "more static contemporary concepts for addressing culture in practice, such as culturally sensitive, culturally appropriate, culturally specific, culturally competent, or culturally relevant" (Nastasi et al., 2015, p. 94). The latter set of terms is more appropriately applied to the *products* of the co-construction process, for example, the culturally specific intervention program that resulted from a dialogic development process.

As we will explicate throughout this text, the delivery of interventions requires attention to the cultural experiences and interpretations of participants within the given context. We contend that attention to culture and context in

the design, implementation, and evaluation of an intervention is likely to enhance the acceptability (i.e., the degree of stakeholder buy-in pertaining to a program), social and ecological validity (i.e., the degree to which the program goals and outcomes are relevant to the real-life experiences of participants), integrity (the degree to which a particular program is implemented as intended), outcomes, and sustainability (see also Alkin, 2013; Nastasi et al., 2004; Ringeisen et al., 2003; Whaley & Davis, 2007). Culture is not only about the shared norms, values, beliefs, and knowledge but also about how the individuals interpret the shared aspects of culture. When we consider culture while providing intervention or prevention services, we must take into account the experiences of not only all key players (at a minimum the client and the service provider) but also those who influence these dyadic relationships (e.g., parents of child clients, teachers, administrators, society, and interactions among them)—that is, all aspects of the ecological system, or context, that encompasses the provider and the client.

To demonstrate the point that culture and context matter, consider trying to help a group of students learn algebra. A review of the National Council of Teachers of Mathematics (NCTM) position on algebra makes clear that the topic is critical (e.g., NCTM, 2008), and some have even characterized learning it to be a civil rights concern (Dubinsky & Moses, 2011). With the understanding that this is not a trivial endeavor, consider working with a group of children who have been reared in a culture that emphasizes rote memorization of arithmetic facts over other aspects of learning, to a point that these children would judge any test items that were not explicitly covered in curricula and emphasized for memorization purposes to be unfair. For example, the item "$2(x) = 8$, therefore, $x =$___" would be construed as fair if it were covered in class, whereas "$10(x) = 80$, therefore, $x =$___" would not be, even if the point of the item was to see if basic skills can be applied to novel problems. Most readers of this book would be hard pressed to think of an example where stakeholders might think such an item to be unfair. But this is not unheard of; according to Cole (1996), the Kpelle tribe of Liberia did indeed at one point focus on teaching math in this manner. For various reasons, such memorization was valued and expected to be of use in later work life. We argue then that if one is working with a group that historically placed such emphasis on memorization, the cultural backgrounds of participants would influence how curricula are delivered given algebra's focus on symbolism and abstraction. That is, a mathematics teacher in this context would be well served by attempts to explicitly address this expectation before getting into the teaching of algebra.

As we address further in Chapter 2, the cultural experiences of a teacher in the preceding example also matter, and the teaching–learning process might be conceived as a process of co-constructing meaning based on shared and unique cultural experiences of both teacher and students. Moreover, the context of the classroom is situated within a school, a community, and a society and is influenced by the cultural expectations, values, and norms of these surrounding contexts. We contend that the development of effective and sustainable programs requires attention to the broad array of cultural factors that influence the ecological system in which the intervention is embedded. For example, consider the experiences of one of the book's authors when introducing a new mathematics education program that emphasized higher order thinking (e.g., problem solving, critical thinking) (Young, Nastasi, & Braunhardt, 1996). The researchers worked with the school administration and teachers prior to program initiation to ensure acceptability and during program implementation to ensure continued acceptability, integrity, projected impact, and sustainability. The program yielded evidence of improved higher order thinking, but the school board was concerned that the basic mathematical skills (e.g., computational skills) were not neglected, as the new program replaced the traditional drill and practice. To promote program continuation and address concerns of the school board, the researchers examined effects on both basic and higher order math skills and reported the documented improvements in both to the school board. This experience illustrates the importance of understanding the context of an intervention from an ecological perspective (in this case, at micro-, exo-, and macrosystem levels).

To generalize the point that culture and context matter, consider these questions that exemplify real-life professional dilemmas:

- What are the implications of providing mental health services to an adolescent girl who appears to be independent but hails from a culture that demands compliance and adherence to tradition?
- What if one were involved with diagnosing and treating mental health disorders but encountered a member of the Old Order Amish who was struggling with bipolar disorder?
- How should a practitioner construe clients who claim that they regularly talk to God but then learns that these clients are members of a fundamentalist religious order?
- Should practitioners consider ethnic backgrounds when delivering a program designed to prevent or treat eating disorders?

- Does it make sense to use behavior rating scales normed in the United States in a country like India?
- Would you consider the cultural background of families when providing marital therapy?
- If you were trying to understand if a school environment were generally accepting of lesbian, gay, bisexual, and transgender youth, would it make sense to understand the community the school serves?
- Can a reading program designed to help Cuban Americans in Miami with word comprehension be applied to Mexican Americans in a Texas city bordering Mexico?
- How can a disaster preparedness program take advantage of familial connections that are emphasized by a marginalized group residing in a specific region?
- Would a bullying prevention program designed to be used in high socioeconomic status schools work well in schools that serve large numbers of children who live in poverty?

When pondering these questions, one might think that they represent some unusual scenarios. But we suspect that most readers can easily conjure examples from their own lives that will support the basic proposition we make for this book, which again is—*culture and context matter*. Indeed, some readers may have such an easy time coming up with their own examples that they may wonder why we would bother to point any of this out. Who would not consider culture and context when engaged in professional practice? By extension, why should one bother to read a book that purports to offer ideas on developing and evaluating interventions that account for culture and context?

We offer a two-point response to these questions. One point is that much of Western[2] training in the social sciences (education, psychology, etc.) and in medicine emphasizes the notion of standardization. Standardization is assumed by social scientists to promote the uniform conduct of assessment

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[2] We use the term *Western* to refer to theories, research, interventions, and so on, developed in what are considered Western cultures such as those in the United States and Western Europe. Arnett (2008), for example, criticizes American psychology research (specifically, research published in APA journals) for neglecting 95% of the world's population, resulting in an "understanding of psychology that is incomplete and does not adequately represent humanity" (p. 602). We will return to this discussion in Chapter 7.

and intervention efforts, a practice that may be at odds with the need for practitioners to make adaptations based on culture and context. But standardization is not a bad thing; indeed, it is often necessary. Anyone trained in assessment will understand the critical role of standardized procedures and its role in valid measurement; variation in assessment procedures makes it harder to assess if a score has been influenced by the behavior of the tester or variables that are ideally external to the purpose of measurement. Standardization also applies to policy work. Much of the general dialogue in the U.S. education industry focuses on achievement, and this dialogue is predicated on notions of standardized assessment and even movement toward standardized outcomes of teaching (consider the United States' federal agenda to convince states to adopt Common Core curricula; Common Core Standards Initiative, 2015). Whereas the aforementioned bulleted questions depicting dilemmas in practice are designed to make the need for flexibility and adaption self-evident, readers should appreciate that this creates a tension with a fundamental element of much of how the social sciences and policy operate. Furthermore, this tension does not exist solely in education settings. There is an ongoing belief by many that psychological and psychiatric disorders have biological mechanisms common to all human beings and, therefore, are not bound by contextual and cultural influences. For example, there is a growing body of evidence that the activation of the sympathetic nervous system (and release of norepinephrine and epinephrine) and hypothalamic–pituitary–adrenal axis (and release of cortisol) associated with responses to acute stress also may be associated with mood disorders and behavioral adjustment (Vigil, Geary, Granger, & Flinn, 2010). Such evidence and related beliefs are likely to promote the assumption that many psychological/psychiatric interventions can be carried out in a uniform manner, which in turn can influence critical policy around mental health treatment (e.g., the number of clients a single psychiatrist can take on, the types of treatment insurance will cover). Yet such uniformity may not help service providers think through concerns such as the acceptability of medication, willingness to follow dosage directions, and so on. Furthermore, in some of our own work, we have found the very notion of stress itself to be culturally specific, meaning that which is stressful in one culture may be less stressful in another. In sum, we believe that standardization is widely regarded as something that describes good assessment, intervention, and policy, and this informs practice in areas such as education, mental health, public health, and medicine. Indeed, our read is that many think

that evidence-based interventions (EBIs)[3] should be routinely informed by evidence that supports a standard way of treating people. But this creates a tension with the need to adapt to cultural and contextual variations when attempting to apply research evidence. Part of the goal of this book is to impart ideas that can help readers strike a balance between standardization and adaptation and think about evidence in local settings.

The second point we raise when responding to professional dilemmas such as those raised earlier (see bulleted list above) is that while it is easy to call for flexibility and adaption, understanding how to do this, or even the need for it, is not always obvious. Consider that researchers such as Sue, Bingham, Porche-Burke, and Vasquez (1999) and organizations such as the DHHS (2001) have expressed concerns that members of a majority culture can have limited self-awareness about their own norms, values, and so on. Obtaining advanced training in the social sciences appears to offer little protection from this concern. Indeed, Cole (1996) asks, "Why do psychologists find it so difficult to keep culture in mind?" (p. 1). We suspect that standardization, norms, and a desire to estimate population parameters can make it easy to miss culturally laden nuances, and this can even lead one to construe cultural differences as pathology and dysfunction (see also Castillo, 1997; Hitchcock & Nastasi, 2011; Sue et al., 1999). To help address this concern in our own work, we draw from qualitative research traditions that focus on the importance of being reflexive (i.e., examining one's assumptions and engaging in critical self-reflection) when engaged in inquiry. Germane to this discussion is the idea of *implicit assumptions* (or tacit theories; see LeCompte, 2000). Implicit assumptions are ones that can be so basic as to escape notice without some discipline but must be examined if one is to engage in credible research design, analysis, and interpretation of data. An implicit assumption (e.g., standardization is a good thing) is not necessarily problematic but, if left unchecked, can cause concerns (e.g., standardization is *necessary* or standardization requires "X activity" to be done *only* in one way).[4]

A particularly pernicious outcome of unchecked implicit assumptions is that highly educated, powerful, and well-meaning interventionists may, at best, be less than optimally effective when helping others, and at worst offer

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[3] We return to the discussion of EBIs in the next section.

[4] We will return to the topic of implicit assumptions in later chapters as we address the cultural competence of program developers, implementers, and evaluators.

interventions that are invasive, iatrogenic, or both. This is not a trivial point. Consider the book *Crazy Like Us: The Globalization of the American Psyche* (Watters, 2010; although published in popular press, the author relies on peer-reviewed literature). Watters (2010) helps demonstrate our concern about interventionists operating from potentially unchecked assumptions. One example that the book offers describes efforts by outside interventionists to help Sri Lankans after the 2004 tsunami (readers will learn later that this is close to our own work). How could these efforts be problematic? It is important to keep in mind that there is a message, perhaps borne out of an unexamined assumption, that indigenous members of a culture are unable to handle tragedies on their own. Such a message can convey a sense of inadequacy and the expectation that survivors need to be rescued. Yet one concern that should be ever present is whether interventionists capitalize on the existing strengths and values of a culture. For example, what aspects of Sri Lankan culture can be used to help a country that has lost thousands of people and suffered extensive economic damage recover as best as possible from such a tragedy? Did Western intervention routinely utilize adaptive characteristics of Sri Lankans (e.g., promotion of community, family, citizenry, and religion) to enhance their efforts? Surely some have, but the Watters account suggests that this was not the norm. Rather, assumptions like Sri Lankans need to be diagnosed and treated for posttraumatic stress disorder appeared to inform most thinking of how to help. The approach was in its way standard, and whether this was best was, apparently, unexamined by many who were trying to help.

On the point of using cultural strengths, Watters (2010) makes a compelling case about how people who struggle with schizophrenia in the so-called developing world may be better off compared with those in countries like the United States, perhaps because a modern biomedical perspective can promote isolation via treatment and stigma by perpetuating an idea that something about a person, in this case a mental health disorder, is innate and static (see also Castillo, 1997). By contrast, people who suffer from schizophrenia can, in some cultures, experience an influx of family and community support informed by a belief that efforts can and will solve a fixable problem. Even if the terminology and thinking expressed in some countries seem mystical by Western standards (e.g., our cousin is plagued by demons), intervention can nevertheless entail a focus on well-being carried out by extended family. Cultural norms in different settings often do not tolerate withdrawal behaviors of a sick person, nor is there an expectation that only a small number of people

(e.g., mental health professionals and support staff) should be tasked with leading supportive care. The result of these differences would be that patients are not isolated, but instead, they are cared for by a wide network of people who believe that improvement is to be expected. Such behaviors would seem to represent a cultural strength and can be contrasted with a widespread belief in Western settings that schizophrenia is a lifelong condition and that treatment generally entails some form of isolation (e.g., private therapy at best or hiding someone from others at worst). This suggests that there is value in understanding the practices of existing cultures so as to capitalize on their strengths when intervening.

Another (perhaps implicit) assumption worth noting here is a widespread belief among practitioners in various mental health fields that Western approaches are superior (Cole, 1996; Trimble, Scharrón-del-Río, & Hill, 2012; Watters, 2010). This can lead to troubling scenarios. A particularly worrisome intervention is the selling of antidepressants medication in Japan and pathologizing culturally accepted norms of sadness (Watters, 2010). The charge made in Watters's (2010) book is that a pharmaceutical company purposefully worked toward shifting cultural norms with an eye toward selling medication. Allow an assumption that this effort to change the status quo in Japan was borne out of a sense of altruism; there was first and foremost a desire to help, and any profit motives were secondary. This assumption may be reasonable; after all, according to the World Health Organization (WHO), suicide rates have risen globally by 60% over the past 45 years (WHO, n.d.), and Japan ranks second to Hungary among Organisation for Economic Co-operation and Development (OECD) nations in terms of suicide rates per 100,000 (Amano, 2005). On the other hand, it is also reasonable to question if a higher rate of antidepressant use is optimal, or even good, for Japanese citizens. Is it better to rely on medication than promoting some of the country's existing traditions that focus on finding meaning and value in sadness? With the exception of those who are at high risk of committing suicide, is it preferable to teach coping skills rather than relying on psychopharmacological intervention? Does Japanese culture have some already existing functions (e.g., social obligations to others, harmony) that can be promoted when treating those with clinical depression? Alternatively, are there cultural and contextual factors that might be contributing to increasing rates of depression and suicide? If so, might we intervene to change the social–cultural context rather than focusing solely on the affected individuals? These are complex questions and ones that

deserve full attention. For now, we wish only to point out that such concerns can be informed by the careful examination of implicit assumptions that intervening and changing things will help improve matters, as opposed to making a situation worse.

Before moving on, an important caveat must be clarified. Much of our work has focused on accounting for culture in program design and evaluation. As rewarding an experience as this has been, we do not advocate that readers always assume that a new intervention has to be developed when thinking about culturally informed evaluation. A contrasting approach is to use what we think of as EBIs, many of which have prepackaged elements and strategies, and some prior evidence that supports the adoption of the scheme. Adopting such programs should always be informed by existing evidence and theory, and if there is ample reason to believe that a program can work, then by all means use it (some of the key trade-offs here are described in Chapter 2). But otherwise, we assume that readers have exhausted this option and are thinking about developing an intervention approach because their knowledge of context dictates that doing so is the best way to proceed. In such cases, program development may involve creating a new intervention or adapting an existing one for cultural and contextual fit. In these cases, program design is still informed by the best evidence available but is shaped to meet the needs of the target population. Furthermore, doing so requires systematic evaluation of the program's effectiveness.

IMPLEMENTATION SCIENCE AND TRANSLATIONAL RESEARCH

Evidence-based practice (EBP) in psychology refers to "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preference" (American Psychological Association [APA] Presidential Task Force on Evidence-Based Practice, 2006, p. 273). This definition is consistent with the definition developed by the Institute of Medicine (2001) that focuses on the combination of research, clinician expertise, and client values. The key elements of EBP are (a) existing research evidence on treatment, intervention, prevention, and so on; (b) the expertise and experience of the clinician or therapist (i.e., professional competence and judgment); and (c) consideration of culture as reflected in the client's beliefs,

values, and behaviors (i.e., client interpretation of culture). EBP involves the application of EBIs, that is, those interventions supported by research evidence, typically through the use of experimental designs (randomized controlled trials [RCTs]) or quasi-experimental designs. The primary distinction is that EBP involves the use of clinical judgment informed by cultural and contextual considerations. (We return to discussion of related issues in later chapters of the book.)

Implementation science is a widely used term that encompasses the development of a knowledge base for understanding and applying effective treatments and interventions (i.e., for applying EBIs and engaging in EBP). Implementation science is used in multiple disciplines, including medicine, psychology, education, and public health. Applied to health services, Eccles and Mittman (2006) defined it as

> the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services. It includes the study of influences on healthcare professional and organisational behavior. (p. 1)

See also Helfrich et al. (2010), Rabin and Brownson (2012), Raghavan, Bright, and Shadoin, (2008). The APA's Division 16 (School Psychology Division) Working Group on Translating Science to Practice extended this definition to "understanding the processes and factors related to successful integration" (Foman et al., 2013, p. 80) of EBIs in school settings, with particular attention to core components, adaptations to the local context, and attention to culture and climate of the school or community (see also Capella, Reinke, & Hoagwood, 2011; Glover & DiPerna, 2007; Kratochwill et al., 2012).

Consistent with implementation science, **translational research** also deals with the application and adaptation of empirically validated (i.e., evidence-based) interventions across cultural and contextual variations. The primary concern in translational research is whether we can effectively translate research to practice. It recognizes the importance of, and answers questions related to, program acceptability (i.e., the degree of stakeholder buy-in pertaining to a program), social or ecological validity (i.e., the degree to which the program goals and outcomes are relevant to the real-life experiences of participants), integrity (the degree to which a particular program is

implemented as intended), effectiveness, and necessary adaptations across cultural and contextual variations (see also Alkin, 2013; Nastasi et al., 2004; Ringeisen et al., 2003; Whaley & Davis, 2007). We include both implementation science and translational research in our discussion, as they are both focused on facilitating effective application of EBIs. The important aspect of both areas of study is that we see a natural fit for consideration of culture and context as we consider the conditions needed for effective implementation (implementation science) and answer questions about the translation of research to practice (translational research). We return to these questions throughout the book.

LIMITATIONS OF STANDARD RESEARCH APPROACHES AND POTENTIAL CONTRIBUTIONS OF MMR

Whether one wishes to adopt an existing program or develop one (we hope in either case, this entails program evaluation), a key set of challenges should be identified and then overcome. An initial basic concern is properly identifying a problem or need. Consulting literature (e.g., Erchul & Sheridan, 2008) points out that incorrect problem conceptualization will undermine subsequent efforts to address it. Efforts to intervene or prevent must be informed by the systematic understanding of context so that proper conceptualization occurs. This can be a vexing problem because interventionists will not always know what to ask at the outset, and even if this were not so, it can be difficult to assess the quality of information. Fortunately, there are powerful methods that can help address these concerns. These are generally conceptualized as qualitative research (Denzin & Lincoln, 2000; Patton, 2014) but can also entail the use of rapid reconnaissance methods (e.g., Chen, 2005; Patton, 2014) that may or may not use qualitative inquiry. Such inquiry is characterized as being emergent (i.e., more knowledge of context is needed before the design or even the questions can be fully conceptualized), exploratory, interpretive, and flexible. Qualitative work can be done with a series of credibility techniques that can be used to promote rigor and some assurance that investigators are drawing defensible conclusions when answering needed questions (details in Chapter 3). In sum, these techniques can be well suited for understanding context. A fundamental problem with most qualitative applications, however, is that they tend to trade

breadth for depth. One can do only so many interviews and observations or review so many extant documents before resources are exhausted. Researchers may want to have a sense of how well findings generalize to some wider population of interest. It is also typical that evaluators want to have causal evidence about program effects. We believe that qualitative inquiry can provide a basis for causal arguments, but they are generally not able to yield evidence that is as clear as that emanating from approaches that many classify as quantitative in orientation (e.g., randomized experiments; see Shadish, Cook, & Campbell, 2002).

Researchers and other stakeholders often need to show that they have a grasp of context, they need to have a strong rationale for why they ask questions a certain way before including related items on a survey, they need to know that an intervention sufficiently targets needs before determining if there is evidence that it does in fact meet those needs, and so on. But they also often need to show that their findings can generalize beyond the immediate context in which data were collected. Such needs place great demands on any research design. But there are answers from the MMR field. MMR has been defined in several ways. Loosely speaking, it is research that systematically combines qualitative and quantitative inquiry. As a class of methods, it has garnered considerable attention in multiple fields. At a research paradigm level, which can be thought of as a set of common beliefs, assumptions, values, and even a culture shared by a group of researchers (Johnson, Onwuegbuzie, & Turner, 2007), MMR has been defined as

> an intellectual and practical synthesis based on qualitative and quantitative research. . . . It recognizes the importance of traditional quantitative and qualitative research but also offers a powerful third paradigm choice that often will provide the most informative, complete, balanced, and useful research results. Mixed methods research . . . (a) partners with the philosophy of pragmatism in one of its forms (left, right, middle); (b) follows the logic of mixed methods research (including the logic of the fundamental principle and any other useful logics imported from qualitative or quantitative research that are helpful for producing defensible and usable research findings); (c) relies on qualitative and quantitative viewpoints, data collection, analysis, and inference techniques combined according to the logic of mixed methods research to address one's research

question(s); and (d) is cognizant, appreciative, and inclusive of local and broader sociopolitical realities, resources, and needs. (Johnson et al., 2007, p. 129)

Consider the idea that MMR can provide the most *informative*, *complete*, *balanced*, *and useful research results*. We have experienced this in our own work when developing and evaluating culturally informed interventions. By way of example, Hitchcock et al. (2005) report on a mixed methods survey development effort. The approach balanced qualitative and quantitative inquiry so as to draw on the strengths of one approach to compensate for the weaknesses of the other. The survey was designed to understand what students viewed to be culturally relevant competencies and stressors. In terms of item writing, we found that prior qualitative inquiry yielded critical ideas on not only what to ask about but also how to go about asking questions in a survey format. Had we assumed that we knew about competencies and stressors, we could have just written a number of items without the benefit of prior inquiry. But we learned from interviews, focus groups, observations, and archival analyses of a number of stressors and competencies that we might not have initially imagined. As an aside, we also obtained information on where to place items within the survey and engage in some subtle vocabulary choices to best tap the constructs of interest. Although qualitative inquiry was critical for understanding the context and culture of our work, it was not feasible to apply these methods across a very large sample. Follow-up inquiry using more quantitatively oriented survey procedures made this possible. These two aspects (qualitative exploration followed by quantitative work with a larger sample) alone demonstrate the power of mixed methods, but triangulating (for now, this means comparing and contrasting findings from each mode of inquiry) results yielded some insights about certain aspects of the culture that would have been difficult to identify given a mono-method investigation. As an example, recall the first question from the bulleted list presented earlier in this chapter: What are the implications of providing mental health services to an adolescent girl who appears to be independent but hails from a culture that demands compliance and adherence to tradition? This question was rooted in one of our findings that girls in Sri Lanka who are assertive and "act like boys" (i.e., act, speak, or/and dress like boys) are viewed as having adjustment difficulties. As products of U.S. culture, the authors might be inclined to interpret such behavior as indicating a sense of emancipation from gender norms and

development of self-identity and further to support individualization in an intervention. However, in broader Sri Lankan culture, at the macrosystem level, this behavior is considered "unsuitable" for adolescent girls and would likely have negative social consequences (e.g., disfavor or rejection by others, disciplinary responses by school staff). Understanding the cultural context might change the focus of interventions with the individual (e.g., exploring the consequences of individual choice) as well as extend the intervention to include relevant ecological contexts (e.g., working with family, school, peer group) (see Hitchcock & Nastasi, 2011, for a longer discussion). Our point here is that the balancing of qualitative and quantitative inquiry, along with comparing and contrasting findings from the different approaches, can yield the complete, balanced, and useful research results described in the MMR definition.

Describing the application of MMR to developing and evaluating culturally (and sometimes contextually) informed interventions is the key purpose of this book. Existing literature provides details on how to do this sort of work, but it is complex and dispersed widely across disciplines such as ethnography, program evaluation, and education research. This book is meant to offer an accessible discussion for readers who are new to this arena, and it adopts a practical focus by using illustrative examples to explain abstract ideas. The intended audience for the book spans graduate students to experienced researchers who seek guidance on how to apply MMR to develop culturally specific programs and conduct subsequent evaluations. Specific types of professionals who should be interested include psychologists, particularly school and community psychologists; social workers; educational interventionists; and program evaluators.

OVERVIEW OF THE BOOK'S CONTENT AND STRUCTURE

The remainder of this book includes seven more chapters. Chapter 2 introduces a conceptual model for how to use MMR to develop and evaluate culturally specific interventions and contrasts this approach with using evidence-based programs. Chapter 3 focuses on using MMR to systematically study context and use this information to guide program design. Chapter 4 deals with how MMR can be used to guide intervention implementation and adaptation. The chapter provides information about (a) monitoring program acceptability,

integrity or fidelity, and social or ecological validity; (b) guiding program adaptations to address cultural and contextual variations; (c) evaluating skill development of program implementers; and (d) conducting formative and summative evaluation of program impact or outcomes. Chapter 5 presents validity issues relevant to program evaluation. Chapter 6 illustrates the application of MMR to program development and evaluation in a community setting, drawing from experiences of the authors. Chapter 7 describes common challenges in conducting mixed methods program evaluation and provides strategies for addressing these challenges. Chapter 8 closes by discussing future directions related to evolving methods for MMR program evaluation and potential applications to a range of settings.

CONCLUSION

Recall that the key learning objectives of this chapter were to introduce the idea that context and culture affect service delivery and to help readers understand why this is a critical point when engaged in intervention development, service delivery, and program evaluation. Furthermore, we hope that the chapter helped readers more fully appreciate why explicit accounting for context and culture is not more widely embraced. We provide two concluding exercises to help you reflect on the content of the chapter. We expect the exercises may raise more questions than answers. We hope the remainder of the book will help provide answers to inform your work in intervention development and evaluation.

Key Terms

- **Context:** Refers to the specific setting or set of circumstances within which an intervention is designed, delivered, and evaluated. We conceive of context from a developmental–ecological perspective drawing on the work of Bronfenbrenner (1989, 1999). Context, in Bronfenbrenner parlance, is the *microsystem* (immediate context) in which the interventionists and participants directly interact, in this case during the delivery of the intervention. This microsystem, however, is influenced by surrounding systems as conceived in Bronfenbrenner's EST (1998, 1999):

exosystem, those that embody the microsystem; *mesosystem*, those that embody the relationship between ecological systems; *macrosystem*, those that embody the larger society or community and the inherent values, beliefs, norms; and *chronosystem*, those that embody the historical or developmental influences.

- **Culture:** Has been defined as "shared language, ideas, beliefs, values, and behavioral norms" (Nastasi et al., 2004) and "a common heritage or set of beliefs, norms and values" (DHHS, 2001, p. 9). With regard to guiding behavior change (i.e., intervention), culture refers to "a dynamic system of meanings, knowledge and actions that provides actors collectively, interpersonally, and individually with community-legitimized strategies to construct, reflect upon, and reconstruct their world and experience, and guide behaviour" (Nastasi et al., 2015, p. 96). Culture is viewed as a ubiquitous construct that can influence intervention and prevention program design, implementation, and evaluation, thus necessitating a need for the consideration of culture in program development and evaluation.

- **Cultural (co-)construction:** Refers to the dialogic process among individuals that leads to development of shared beliefs, values, and norms reflecting the integration of thinking from all parties. Within the intervention context, cultural co-construction refers to the dynamic dialogic *process* that occurs between interventionists (health providers, therapists, teachers/educators, etc.) and recipients (patients, clients, students, etc.); whereas terms such as culturally sensitive or relevant apply to the *products* of the co-construction process. (For further discussion and illustration, see Nastasi et al., 2015.)

- **Culture specific:** Refers to the embodiment of "an individual's real-life experiences within a given cultural context (e.g., neighborhood) and his or her understanding of those experiences" (Nastasi et al., 2000, p. 403).

- **Evidence-based practice (EBP):** In psychology refers to "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preference" (APA Presidential Task Force on Evidence-Based Practice, 2006, p. 273). This definition is consistent with the definition developed by the Institute of Medicine (2001) that also focuses on the combination of research, clinician expertise, and client values. EBP thus involves the application of EBIs with due consideration to clinical judgment and cultural and contextual factors.

- **Implementation science:**

    The scientific study of methods to promote the systematic uptake
    of research findings and other evidence-based practices into rou-
    tine practice, and, hence, to improve the quality and effectiveness
    of health [mental health, educational] services. It includes the study
    of influences on healthcare [mental health, educational] profes-
    sional and organisational behavior. (Eccles & Mittman, 2006, p. 1)

- **Mixed methods research (MMR):** Research that systematically com-
    bines qualitative and quantitative inquiry. MMR "relies on qualitative
    and quantitative viewpoints, data collection, analysis, and inference
    techniques combined according to the logic of MMR to address one's
    research question(s); and is cognizant, appreciative, and inclusive
    of local and broader sociopolitical realities, resources, and needs"
    (Johnson et al., 2007, p. 129).

- **Program:** Refers to an organized and purposeful effort to promote
    development, learning, or well-being; or intervene to prevent the occur-
    rence of problems or mitigate existing problems. Programs can occur at
    individual, provider (therapist, teacher), system (organizations, commu-
    nities), or multiple (individual, provider, system) levels (Nastasi &
    Hitchcock, 2009). Programming encompasses screening, identification,
    diagnosis, planning and design, implementation, monitoring and
    oversight, evaluation, staffing and staff training. *Program services*,
    delivered directly or indirectly, can entail promotion, prevention, inter-
    vention, treatment/remediation, and maintenance (Hess, Short, & Hazel,
    2012). *Program evaluation* entails the systematic and empirical investi-
    gation of the merit, worth, and value of a program (Scriven, 1991). A
    comprehensive evaluation of the program involves data collection from
    multiple sources to assess program acceptability, social or ecological
    validity, implementation (integrity or fidelity), outcomes, sustainability,
    and institutionalization (Nastasi et al., 2004; Nastasi & Hitchcock,
    2009).

- **Translational research:** A complex topic that deals with the applica-
    tion and adaptation of empirically validated (i.e., evidence-based)
    interventions across cultural and contextual variations. It answers ques-
    tions related to program acceptability (i.e., the degree of stakeholder
    buy-in pertaining to a program), social or ecological validity (i.e., the

degree to which the program goals and outcomes are relevant to the real-life experiences of participants), integrity (the degree to which a particular program is implemented as intended), effectiveness, and necessary adaptations across cultural and contextual variations (see also Alkin, 2013; Nastasi et al., 2004; Ringeisen et al., 2003; Whaley & Davis, 2007).

Reflective Questions and Exercises

1. As a concluding exercise, consider revisiting the bulleted list of questions provided earlier in the chapter. Then, think of a story you've recently heard of, or know from your own life circumstances, where some sort of intervention might benefit a group of people, but it is critical to have an intervention that accounted for local context and culture. At a minimum, address the following questions:

   a. What was the problem/reason for intervening? Who are the primary and secondary intended beneficiaries of your services?

   b. What would you have done to address the need? Were there prior attempts to help, and if so, for what reason do you think your approach might lead to better outcomes for the people you wish to help?

   c. Based on your knowledge of the situation, what special circumstances do you think would need to be addressed to make your services as effective as possible?

   d. How would you evaluate your efforts?

2. Identify an EBI or manualized treatment in your area of interest. Describe and critique the program, using the following questions to guide the critique:

   a. Does the program have sufficient evidence to warrant its use in an applied setting (e.g., school, community, hospital)?

   b. In what contexts and with what populations has the program been empirically tested?

   c. What modifications might be necessary to adapt the program to your intended context or population (i.e., with whom you are currently working or intend to work)?

   d. Would you use this program? Why or why not?

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