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Family Science as Translational Science: A History of the Discipline

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Abstract

Family science has been a translational science since its inception. The history of family science began with an interdisciplinary group of scholars who came together to explore the complex nature of families during the *discovery* phase, paying particular attention to applying information to resolve family challenges. In the *pioneering* stage, family professionals struggled with naming the discipline and assembled professional groups that collected and applied information to benefit families. In the *maturing* stage, disciplinary leaders deemed that family science met the criteria of a bona fide discipline and the field's identity became more pronounced, with a great deal of translational work occurring. During the current stage, *evaluation and innovation*, family science professionals need to assess programs and practices to refine and better articulate and distinguish the field. This historical account accentuates the central importance of the translational nature of family science to the discipline's identity.

Key Words: Development of a discipline, family science, translational research.

Family science has a long history of being a translational science. In this article, we begin by providing a definition of translational science. We then provide a history of family science in which we draw connections with the translational identity that has long been at the core of the discipline, drawing attention to the thread of translational work throughout each period of the discipline's development.

Translational Science

Phrases such as *mission-oriented research*, *directed research*, *use-inspired basic research*, and *strategic research* have long been used to describe scholarship that attempts to link discovery with practice or utility (Lander & Atkinson-Grosjean, 2011, p. 538). Beginning in the 1990s, phrases such as *translational science*, *translational research*, and *translational medicine* were adopted as the practice of linking fundamental discoveries with application utility became increasingly popular, both in health sciences and nonmedical fields (for an example of teen drug resistance strategies in the communications field, see Hecht & Miller-Day, 2007; for application in social work, see Palinkas & Soydan, 2012).

Translational research links "scientific findings with programs and policies that improve human health and well-being" (Wethington, Herman, & Pillemer, 2012, p. 4). In other words, the end goal is to translate scientific research discoveries into meaningful applications that make a difference in people's lives (Lander & Atkinson-Grosjean, 2011). However, there is a "dynamic and recursive nature" to translational science as "questions and hypotheses are constantly reformulated to align with knowledge gained in the processes of translation" (Lander & Atkinson-Grosjean, p. 538). Translational research in the social and behavioral sciences is "iterative rather than linear" (Lemon et al., 2013, p. 491). Research agendas are shaped by those

who will ultimately benefit from the application of these scientific discoveries (Office of Behavioral and Social Sciences Research, 2007).

Although the concept of translational science was evident in medical journals since the 1970s, it was initially only applied to biomedical research given the incentive to translate research findings into practices and policies that would prevent and treat diseases (Wethington et al., 2012). In other words, when scientists discover new research knowledge and medical treatments, they need to deliver them to the patients or populations for whom they are intended (Woolf, 2008). Wethington and colleagues (2012) argued that the definition of translational science has more recently expanded to include research in the social and behavioral sciences. There is a push to see that research actually makes a positive contribution to people's lives and that it does so in a timely manner. Family science maintains the same desire for movement from basic to applied science, as is demonstrated in this special issue. To effectively conduct translational research, family scientists need to be aware of community needs and practitioners need to employ evidence-based prevention and intervention programs (Wandersmann & Lesesne, 2012). This interface between basic discovery research informing applied science and applied science informing basic research is a distinct strength of family science and is evident throughout its history.

The History of Family Science

Family science is a relatively young discipline compared with other social sciences such as psychology, social work, and sociology. The National Council on Family Relations (NCFR) Task Force (1988) described the discipline's development in three stages: the *discovery stage*, the *pioneering stage*, and the *maturing stage*. More recently, we suggested that the discipline has moved into a stage of *evaluation and innovation* (Hamon & Smith, 2014). What is apparent from

reviewing each phase in the maturation of family science is the way in which scholarship and practice have been intertwined. Compared with other social science disciplines that were discovery oriented for decades, family science's evolution and continuing identity is marked by its focus on application. As we review the historical development of the field of family science, we highlight how family science has been a translational science all along.

The Discovery Stage

Accounts vary as to the actual date of origin, but scholars consider the development of the field of family science to be gradual. Many believe that family science emerged in the United States between 1880 and 1920, when interdisciplinary scholars became increasingly concerned about the difficulties that families encountered, largely as a result of urbanization and industrialization, and the need for social change (Christensen, 1964; Doherty, Boss, LaRossa, Schumm, & Steinmetz, 1993). The early phase of the field was purely interdisciplinary, as a group of pioneer scholars—anthropologists, sociologists, home economists, theologians, psychologists, criminologists, and social workers—recognized that *family* was an important domain of inquiry (NCFR Task Force, 1988). Before this time, these individual disciplines "conveyed a limited and fragmented vision of the scope and complexity of family life" (Hollinger, 2002, p. 300). They focused on varying parts of families, but there was no one disciplinary field to "put it all together" and for which the study of family was its core (NCFR Task Force, 1985, p. 3).

During this *discovery stage* of the field of family science, these interdisciplinary scholars began conducting systematic family research on topics of concern (NCFR Task Force, 1988), employing more rigorous, objective, scientific research methodologies and assuming a holistic vision of family (Hollinger, 2002). A substantial body of scientific knowledge about families was produced between 1920 and 1950 (B. N. Adams, 1986). For example, the NCFR Task Force

(1988) noted research done on the impact of the Great Depression on families (Angell, 1936), work devoted to better understanding factors that predict marital success and failure (Burgess & Cottrell, 1939; Terman, 1938), and numerous other scholarly efforts focused on families (Becker & Hill, 1939; Waller, 1938). The interdisciplinary roots of family science supported its translational nature as scholars and practitioners worked together in their attempt to understand family challenges and to provide solutions to them. Thus, from its beginning family science embodied both discovery and application in its identity (NCFR Task Force, 1988). For instance, many early individually oriented psychotherapists with backgrounds in counseling, psychiatry, and social work became family therapists as they influenced, and were influenced by, familial questions, familial data, and familial interventions (NCFR Task Force, 1988).

During this period of concern for the condition of marriages and families, several scholars began to offer college courses on family. In 1917, Ernest Burgess offered the first documented family course at the University of Chicago (Powell & Cassidy, 2007). In 1922, Ernest Groves offered another of the first college courses on the family at Boston University. Groves subsequently developed a course on parent education at Harvard University (Bailey & Gentry, 2013); published the first known college textbook in the field, titled *Social Problems of the Family*, in 1927 (Hollinger, 2002); offered the first marriage counseling course in 1937; and in 1939, initiated the first graduate program in marriage and the family at Duke University (Greene, 1986). These academic leaders used family information to educate students who would then apply the scholarship to professional practice, emphasizing the interplay between discovery and application and the influence of translational science

Subsequently, interdisciplinary professionals assembled around the topic of family and professional organizations developed. For instance, in 1934 Ernest Groves cofounded the Groves

Conference on the Conservation of Marriage and the Family. With a background in ministry and as a family sociologist, Groves was passionate about the need not only to understand but to enhance the condition of marriages and families (Cole & Cole, 2012). While on the faculty of the University of North Carolina in Chapel Hill, Ernest and his wife, Gladys Groves, organized meetings of prominent professionals interested in marriage and family issues. The organization did not have a membership list; instead, Ernest and Gladys sent invitations to sociologists (e.g., Ernest Burgess, John Cuber), home economists (e.g., Evelyn Duvall), psychologists (e.g., Lester Dearborn), psychiatrists (e.g., Robert Laidlaw), obstetricians and gynecologists (e.g., Robert Dickerson), urologists (e.g., Abraham Stone), physicians, social workers (e.g., Emily Mudd), clergy (e.g., Sidney Goldstein; Cole & Cole, 2012), and students. With roots in translational science, the conferences encouraged family educators and clinicians

> to develop courses and programs using available research. . . . In some respects the conference was a service project for extending the outreach of the Groves' work on family into the community and also was a chance to bring together leaders and encourage professional interchange. (Settles, Rubin, & Sibbison, 2012, p. 2)

In the early years, during a time of racial segregation in the South, Ernest and Gladys developed parallel conferences for Black professionals and educators that included many of the same speakers and programs (Settles et al., 2012). The Groves did not hold the conference in 1943–1945 but resumed after the war. Despite changes in leadership, today the Groves Conference on Marriage and Family, as it has been called since 1951, is known as an interdisciplinary group of professionals that serves as a think tank on cutting-edge theory development and empirical research in the field (Groves Conference, n.d.).

The NCFR, another interdisciplinary professional organization to emerge during this time of discovery, further established the foundation of family science as a translational science. In 1938, Paul Sayre (a law professor from the University of Iowa), Ernest Burgess (a sociology professor at the University of Chicago), and Rabbi Sidney Goldstein (Chair of the Central Conference of American Rabbis in New York City) founded the NCFR. As reported in the *NCFR History Book*, they convened the first meeting on April 21, 1938, in Chicago, Illinois.

> These early leaders envisioned an inter-professional forum to provide opportunities for individuals, organized groups, and agencies interested in family life to plan and act together on concerns relevant to all forms of marriage and family relationships, establish professional standards, promote and coordinate educational and counseling efforts, and encourage research. (NCFR, n.d.-b, para. 5)

Although the founders anticipated only one national meeting each year, they expected states and regions to conduct their own meetings and serve as the "action arm" of the organization (NCFR, n.d.-b, para. 6).

Today the NCFR is the premiere professional association for those interested in advancing theory, practice, and knowledge about families and plays a critical role in supporting knowledge translation. The way in which professionals from a broad range of fields coalesced around the field of family further highlighted the interdisciplinary roots of both the organization and the field (Hollinger, 2002). Ingoldsby and Bowen (1993) noted that NCFR was founded "on a pillar of professional diversity" (p. 81) but warned that although professional diversity is essential to NCFR's profile, it must not become "an umbrella so wide that it loses its meaning" (p. 89). As we further elaborate later in the article, NCFR plays a critical role in family science's

identity as a translational science by facilitating interdisciplinary collaboration, a hallmark of translational science.

Many of the early members of Groves Conference also played a pivotal role in the development of marriage and family therapy, further highlighting the translational and interdisciplinary nature of family science. Along with Emily Mudd, Lester Dearborn, David Mace, and Vera Mace, Ernest Groves—the "father of applied marriage and family therapy courses" (Cole & Cole, 2012, p. 64)—was instrumental in originating the American Association of Marriage Counselors in 1942 and became its founding president (Greene, 1986). Emily Mudd, a social worker who counseled women on birth control, and Lester Dearborn, a psychologist interested in marriage counseling, linked the Groves Conference with the New York City meetings of medical doctors and clinicians, occurring from 1931 to 1942 around issues of sexual and marital problems. Together, professionals from these two groups formed the initial core of the original members of the marriage and family therapy profession (Cole & Cole). In 1950, Mudd also founded the Marriage Council of Philadelphia at the University of Pennsylvania's Medical School in the Department of Psychiatry. She located this training center within a university and helped to set standards for professionals working as marriage counselors (Cole & Cole, 2012). Mudd later approached David and Vera Mace, renown for introducing marriage counseling in the United Kingdom, and they attended the Groves Conference and joined the American Association of Marriage Counselors in 1949. In his early work as a Methodist minister, David Mace learned of the marital challenges of many people during the Great Depression and World War II, and he subsequently recruited and trained marriage counselors around the world. David Mace and Vera Mace later moved to the United States and became co-executive directors of the American Association of Marriage Counselors (AAMC). During their

tenure in this role, they assisted with the development of professional standards for training and membership, helped to grow the AAMC membership, established financial stability for the AAMC, and expanded the scope of the organization to include family counseling and therapy such that it became marriage and family counseling and therapy (Mudd & Fowler, 1969). The historical development of marriage and family therapy reiterates its interdisciplinary roots, as well as one way in which family science is translated into practice.

The Pioneering Stage

The translational aspects of family science continued to be a cornerstone during the second stage in the development of the field of family science, identified as the *pioneering stage.* This phase began around 1946 and is associated with the publication of a seminal article titled "Professional Training for Family Life Educators." In this article, Ernest Groves (1946) called for a new family field or a *science of marriage and family*. According to Groves,

> The outcome will be a *science of marriage and the family* carried out by specialists who will draw their data from a wide range of resources. They will not be sociologists, home economists or social workers but persons who are committed to the *gathering and the giving of information* [emphasis added] that concerns marriage and the family, who have prepared themselves for such an undertaking, and who have approached their task from a background shared by no other science. (Groves, 1946, p. 26)

Groves envisioned a translational science that would prepare professionals to use their skills and research expertise to help marriages and families deal with the real challenges before them. According to the NCFR Task Force (1988, p. 89), Groves argued that (a) a *familial* perspective would enhance "the understanding of family processes" just as history and politics benefit from historical and political perspectives, (b) a family perspective would generate

"theories, research methods, and intervention strategies that were *familial*" and distinct and unique from previously existing disciplinary perspectives, and (c) family-focused graduate programs were essential for training family scientists and family therapists who will hold distinct perspectives from other social scientists and clinicians.

The new discipline of family science had its challenges, particularly related to its interdisciplinary and translational identities. Scholars conceive of a new discipline when professionals adopt a unique perspective to contemplate new problems or when reconsidering existing issues, conducting research, offering explanations, and proposing solutions (NCFR, 1988). In a brief editorial, Pearl (1950) outlined many of the logistical issues with which the new discipline would need to struggle, particularly with regard to developing standards and training programs for those within the new discipline. Schvaneveldt (1971) also anticipated difficulties for the new discipline because of the overlap that existed between family science and so many professional disciplines, as well as the inclination to identify with and exhibit greater loyalty to one's parent discipline. He identified numerous likely role problems that result from conflicting demands of college family life educators and researchers.

In light of the interdisciplinary nature of family science, which remains essential for its translational identity, what to name the new discipline was cause for concern. In the early 1980s, Burr and Leigh (1983) noted that there were 53 names to describe "family" departments (e.g., family studies, child and family development, family and child ecology, human development and family ecology). Data they collected from an NCFR membership survey suggested that 68% of respondents deemed "variation in department labels" a *fairly serious* or *very serious* problem. To resolve the problem, 43% of respondents favored choosing an existing label, and 63% believed it was desirable to find a completely new term to describe the field. Although *family studies* was

the preferred existing name due to its effectiveness and familiarity, Burr and Leigh concluded that "it does not make sense to be a 'Family Studiesist'" (p. 474). *Family science* was the next most preferred existing term, being simple and accurately descriptive. Of seven new terms offered (e.g., famics, familology), *famology* was the preferred term. When weighing the choice between *family science* and *famology*, Burr and Leigh used seven factors to evaluate the options. Cons against adopting *famology* included the disruption caused by a brand new term and lack of "euphony." However, *famology* outweighed *family science* on the remaining five factors: (a) famology has a greater disciplinary, rather than interdisciplinary, emphasis; (b) famology is one rather than two words; (c) "logy" is the Greek suffix for "study of" and is broader and "more inclusive than the science of something"; (d) most existing disciplines have one-word labels (two-term labels including science "tend to be interdisciplinary areas"); and (e) famology would create fewer misunderstandings because it has fewer connotations than family science (p. 475). Thus, Burr and Leigh (1983) proposed naming the new discipline *famology*, but this was controversial because many perceived lines being drawn between various groups of family scholars. Consequently, *famology* never gained traction.

After conducting open sessions at the 1983 annual meeting of NCFR, then NCFR President Bert Adams determined a need to further examine the developing discipline and appointed a Task Force on the Development of the Family Discipline. The Task Force comprised nine scholars appointed as officers and 78 additional participants who responded to an open invitation in February 1984 (NCFR Task Force, 1987). In addition to publishing some position papers in the *NCFR Report*, identity discussions were held at the 1984 NCFR annual conference at which time a formal vote was "taken to accept the position that there is a distinct and identifiable family discipline" (NCFR Task Force, 1987, p. 48). At the same meeting, five task

groups were formed to tackle several distinct issues. A Task Group on the Name of the Discipline was assigned to discuss and then recommend the best nomenclature for the family field (Burr, 1984). The Task Force presented its work and recommendation at the 1985 NCFR Conference in Dallas, Texas. The group strongly endorsed using the term *family science* to identify the discipline "where the primary goals are the *discovery*, *verification*, and *application of knowledge* [emphasis added] about the family" (NCFR Task Force, 1987, p. 49) and members unanimously approved the proposal. The Task Group outlined eight reasons for the recommendation: (a) family science is a clear label, (b) family science is easily understood, (c) family science is an accurate label, (d) family science is an up-to-date label, (e) family science provides a professional identity, (f) family science allows flexibility, (g) family science can include discovery and application, and (h) family science was acquiring momentum (NCFR Task Force, 1987, pp. 49–51). Important to the purpose of this article, the inclusion of both discovery and application (reason "e" above) demonstrates that family science

> embraces both the theory/research aspects of the field and the applied aspects such as family services, family economics, family life education, family extension, and marriage and family therapy. Hopefully, the basic and applied aspects of family science will always be seen as intricately interrelated, complementary, and mutually facilitating: and those who specialize in either emphasis will appreciate their dependence on the other part. (NCFR Task Force, 1987, p. 51)

Thus, family science's concern with both discovery and application at this stage of the field's development remained consistent with the focus on translation established during the pioneering stage.

On the basis of the strength of the endorsement, many assumed that the new name would trigger greater uniformity relative to names of courses, majors, and departments (NCFR Task Force, 1987). However, as will be noted in the evaluation and innovation stage, family nomenclature continues to be a challenge for the field.

Despite the challenges confronting the new discipline, new professions emerged as professionals in the field translated research into practice. For instance, the professions of family life educator, family extension specialist, and family therapist emerged during this time (NCFR Task Force, 1988). Each of these professions epitomizes the link between discovery (integration of existing findings from a variety of disciplines, as well as original family science research) and application; an essential skill of each profession is to translate scientific findings into practice. Family extension agents translated scientific family research findings into information formats accessible to the lay public. Family life educators recognized that their family life education programs designed to enrich marriages, prevent teen pregnancy, or accomplish any of many other objectives, needed to be based on scientific knowledge. Family therapists were "asking familial questions, seeking familial explanations, gathering familial data, and experimenting with familial interventions" (NCFR Task Force, 1988, p. 93); they, too, were cognizant of the growing theoretical and scientific base available for their practice. The iterative relationship between research and practice evident in translational work, as described by Palinkas and Soydan (2012), was taking place in family science during this stage.

The Maturing Stage

Those in the family discipline engaged in important translational work and helped to clarify and solidify the young discipline's identity during the *maturing stage.* According to the NCFR Task Force (1988),

> there are many new research findings, therapeutic strategies, educational and enrichment methods, professional organizations, conferences, and workshops. There is also an expanding realization that the family is important, and this has led to many new ways of expanding knowledge about the family can be applied. (p. 90)

There was a flurry of translational activity as the new family discipline developed "familial explanations" and "solutions" to problems (NCFR Task Force, 1988, p. 93), reinforcing the constant interface between family scholarship and family practice.

During this phase, family science further articulated its identity (Hollinger, 2002). At the 1982 National Council on Family Relations Conference, Burr and Leigh (1983) purported that the family field met the seven criteria necessary for the existence of a bona fide discipline, launching the *maturing stage* (NCFR Task Force, 1988). These criteria include (a) a distinct subject matter; (b) an expansive collection of theory and research; (c) an emphasis on select, unique methodologies; (d) supporting paraphernalia (i.e., professional associations, journals, academic departments, majors); (e) apparent utility as evident in mature applications, as seen in the professions of family therapy and family life education; (f) the ability to teach or discipline a community of scholars; and (g) a consensus among professionals that the discipline exists (Burr & Leigh, 1983). More recently, Bailey and Gentry (2013) added an eighth criterion: accumulating history. We consider all eight of these criteria as providing a useful framework for examining the continuing development of the field and use them here to elaborate on the activity that occurred during the maturing stage.

A distinct subject matter. Relative to the first criteria, Burr and Leigh (1983) argued that "the family is one of the most fundamental and complex human institutions" (p. 468) and is very different from other small groups or other systems. Families' "life-cycle, careers, affect,

commitment, and help patterns" are uniquely affected by "age, gender, function and role composition" (Burr & Leigh, p. 468) of family groups. Discovery work about families, and how they are defined and function, is critical for those translating such scholarship into clinical practice and other forms of application and vice versa.

The "family realm" is also a distinct subject matter that is unique from nonfamily domains of experience (Beutler, Burr, Bahr, & Herrin, 1989, p. 806). According to Beutler and colleagues, the family realm has seven qualities that differentiate it from nonfamily spheres like spiritual, economic, medical, educational, and commercial realms:

> These are (a) the generational nature and permanence of family relationships, (b) concern with "total" persons, (c) the simultaneous process orientation that grows out of familial caregiving, (d) a unique and intense emotionality, (e) an emphasis on qualitative purposes and processes, (f) an altruistic orientation, and (g) a nurturing form of governance. (Beutler et al., p. 806)

Given this distinct subject matter, Burr and Leigh (1983) argued that just as the study of political or economic institutions benefit from separate disciplines (e.g., political science and economics, respectively), a discipline devoted to the study of families is also a critical addition to the academic community to benefit the study of families.

An expansive collection of theory and research. Scholars in the discipline of family science have produced important theoretical and methodological handbooks and texts, supporting the science of translation. The first handbook on marriage and family was written by Christensen (1964) and other important handbooks followed, representing the collective methodological and theoretical wisdom of many leaders in the family field (e.g., Bengtson, Acock, Allen, Dilworth-Anderson, & Klein, 2005; Boss, Doherty, LaRossa, Schumm, &

Steinmetz, 1993; Burr, Day, & Bahr, 1993; Carver & Teachman, 1995; Peterson & Bush, 2013; Shehan, 2016). The first text dedicated to family theory, coauthored by F. Ivan Nye and Felix Berardo (1966) and titled *Emerging Conceptual Frameworks in Family Analysis*, identified a number of theories that could be used in the study of families and became an invaluable resource for early graduate students in family programs. More than a decade later, Wesley Burr, Reuben Hill, F. Ivan Nye, and Ira Reiss (1979) coedited an influential two-volume series titled *Contemporary Theories About the Family.* The first volume included 22 chapters that summarized and evaluated research in multiple family domains (e.g., intergenerational relations, mate selection, family power, family communication and problem-solving, family violence) with the primary purpose of delineating empirically testable propositions based on the existing literature. The second volume elaborated on the theoretical frameworks of choice and exchange, symbolic interaction, general systems, conflict, and phenomenology theories. Now several contemporary family theory texts are available for undergraduate and graduate students of family science (e.g., Fine & Fincham, 2013; Smith & Hamon, 2017; White, Klein, & Martin, 2015). As this history of texts attests, theories play a critical role in family science (Burr, 1995).

In addition to the handbooks already noted, methodological and theoretical work is ongoing, facilitating the integration of discovery to applied science and the integration of applied science to discovery. For instance, the Theory Construction and Research Methodology (TCRM) Workshop meets in conjunction with the NCFR's annual conference. Since its beginning in 1971, TCRM "has been a collegial forum for the discussion, development and refinement of theory and methods relevant to the study of families. It is a venue for cutting-edge work in family theory and/or research methods" (NCFR, n.d.-d). In addition, in 2009, NCFR founded the *Journal of Family Theory and Review*, which "publishes original contributions in all areas of

family theory, including new advances in theory development, reviews of existing theory, and analyses of the interface of theory and method, as well as integrative and theory-based reviews of content areas, and book reviews" (see https://www.ncfr.org/jftr). Theory and methods are thus of great importance to family science.

With systems theory as a core theoretical lens through which family professionals see the world, it should not be surprising that family researchers and practitioners have maintained a long and symbiotic relationship. Wandersman and Lesesne's (2012) Interactive Systems Framework for Dissemination and Implementation describes the bridge created by these two groups of professionals. Within this framework, the researcher and consumer-practitioner perspectives are both important when viewing and maximizing translation efforts. Translational research offers "data on how to make research innovations meet needs and fit communities well so that innovations are feasible locally" (Wandersmann & Lesesne, 2012, p. 46). The model emphasizes the need for researchers to be informed about community needs, as well as the capacity of practitioners to implement evidence-based prevention and intervention programs.

Urie Brofenbrenner (Bronfenbrenner, McClelland, Wethington, Moen, & Ceci, 1996), originator of human bioecological theory, modeled translational scholarship and "promot[ed] 'translational research' without using the term" (Wethington & Dunifon, 2012, p. xiii). Bronfenbrenner believed that researchers and policymakers needed to communicate directly to ensure optimal child development and family support; he was intentional about communicating his theory and the results of his own research to practitioners and policymakers. Inspired by the work of Bronfenbrenner and colleagues (1996), and in Bronfenbrenner's honor, Wethington and Dunifon (2012) edited a book entitled *Research for the Public Good: Applying the Methods of Translational Research to Improve Human Health and Well-being.* The contributors were from a

variety of social science disciplines, including human development and family science, and offered various methods for translating scholarship to practice, as well as illustrations of how they have done so in their own work.

For instance, Evans (2012) reiterated the importance of political, legal, and budgetary environmental factors—Bronfenbrenner's macrosystem—during translation. He noted that the medical model method of random control trials is not sufficient for examining political and social policies. In fact, a broader range of applied research methods (e.g., qualitative combined with quantitative methods, and community-based participatory research), often found in the social sciences, enhance the ability to evaluate, modify, and innovate in the public policy realm. Policymakers need individual, familial, population, and government-level information when assessing the costs and benefits of health care reform policy for the American public. In the same collection, Ipsa (2012) reflected on the value of qualitative research strategies in translational research and her experience of doing translational scholarship with the Early Head Start program. The authors within the text demonstrate how many research methodologies employed by family scholars using human ecological theory facilitate translational scholarship for policy and practice. Clearly, family science methods and theories are instrumental in the translational work conducted by family science professionals.

Supporting paraphernalia. A fourth criterion for a bona fide discipline is the existence of paraphernalia that support the discipline (Burr & Leigh, 1983). Disciplinary supports—including professional associations; organized meetings for scholars and practitioners; journals, handbooks and other publications; listservs and various networking options; and academic departments, majors, curriculum which sustain a field—have provided the field "a means of professional growth, interaction, and exchanges so that the discipline can continue to develop" (Burr & Leigh,

1983, p. 469). These supports are particularly critical for facilitating communication and cooperation between the discovery and application arms of family science.

Smart (2009) asserted that two organizations—the Family Science section of the NCFR and the Family Science Association (FSA)—"gave recognition to the new discipline" (p. 118). In 1985, the NCFR's board of directors transitioned the NCFR Task Force on the Development of the Family Discipline to section status. The original name for the section was the Family Discipline section, but it was renamed the Family Science section in 1992 (Smart, 2009). In 2014, the section was again renamed to the Advancing Family Science section to better reflect its purpose: "to help advance the field through administration and leadership and to discuss primary potential foci in the field as well as pedagogical techniques" (NCFR Family Science Section Minutes, November 2013).

The NCFR plays a critical role in the translation process, assembling researchers and practitioners together and facilitating conversation and collaboration around the latest scholarship. As such, many members of the family science discipline consider the NCFR their primary professional organization (Burr & Leigh, 1983; Hamon & Smith, 2014; Ingoldsby & Bowen, 1993). On its website, the NCFR (n.d.-e) notes that its membership represents "professionals from social research, teaching, practice, policy analysis, and human services." As such, the NCFR plays a critical role in disseminating cutting-edge family scholarship and practice via its annual conferences and premiere journals (e.g., *Family Relations* [with a strong application thrust], *Journal of Marriage and Family*, *Journal of Family Theory and Review*), and in generating a variety of disciplinary resources, including ethical guidelines for family professionals (R. A. Adams, Dollahite, Gilbert, & Keim, 2001; Arcus, 1999; NCFR, 1999), the *Careers in Family Science* booklet (NCFR, 2015), and the online resource for graduate and

undergraduate study in marriage and family (Hans, 2017). The NCFR performs another essential function that is particularly germane to this article: It works to bridge research and practice in family science by including research-practitioner updates and inviting speakers to discuss how research can be applied by those working in policy and practice (Small, 2005).

In addition to the NCFR and the Groves Conference on Marriage and Family, there are other professional associations to which family science scholars and practitioners might belong as well that support the discovery and application identity of the discipline. First, the Family Science Association (FSA; see www.familyscienceassociation.org), born of NCFR in 1987 (Smart, 2009), attempts to enhance the teaching of family science, promote the study and understanding of professional issues, and improve the quality of information, knowledge, and education about family science. Members assemble around an annual Teaching Family Science Conference and use its electronic journal, *Family Science Review,* for articles focused on the scholarship of teaching and learning in family science. Second, the American Association of Marriage and Family Therapy (see www.aamft.org), in existence since 1942, is primarily for family science professionals who apply their work in clinical settings. Journals developed in this domain include *Family Process* in 1962, *Family Therapy* in 1972, and *Journal of Marital and Family Therapy* in 1975 (Bailey & Gentry, 2013; Bartle-Haring & Slesnick, 2013). Third, the Council on Contemporary Families (see www.contemporaryfamilies.org) is "a non-profit, non-partisan organization dedicated to providing the press and public with the latest research and best-practice findings about American families." The Council's mission is "to enhance the national understanding of how and why contemporary families are changing, what needs and challenges they face, and how these needs can best be met" ("About the Council on Contemporary Families," n.d.), thereby facilitating the translation process. Toward that end, the

Council hosts an annual conference and creates occasional briefing papers and fact sheets. In sum, professional organizations provide essential resources to family professionals; opportunities to share and learn about recent research and practice through conferences, journals, and other publications; and networking occasions for family professionals in the discovery and application domains of the field.

Family scholars and practitioners have been able to enlist the support of the Internet as a communication mechanism for translation and feedback between the discovery and the applied and clinical domains of family science. Toward that end, in 1990, the University of Kentucky introduced the first family science discussion list (Bailey & Gentry, 2013). The list afforded a convenient forum for seeking information, announcing opportunities, and sharing research and practice ideas. Many professional organizations, including the NCFR, now manage a variety of listservs for its members. For instance, the NCFR hosts listservs for each of its sections (e.g., Advancing Family Science, Education and Enrichment), as well as for certain subgroups (e.g., Academic Administrators) to communicate. These forums permit discussion within various groups and the generation of new models for practice and research.

Disciplinary leaders developed paper and Web-based resources to help define the discipline and the professionals within it. For instance, shortly after the NCFR Task Force recommended adoption of *family science* to describe the new discipline, Burr, Day and Bahr (1988) published the first edition of their textbook named after the new field, *Family Science.* They defined family science as follows:

> Family science is the discipline devoted to the study of the unique realm of the family. Its primary concentration focuses on the inner workings of family behavior and centers on family processes such as emotions in families, love, boundaries, rituals, paradigms, rules

> routines, decision-making, and management of resources. When the family is studied from a family science perspective, researchers, practitioners, and clinicians treat information from other related disciplines (e.g., sociology, psychology, and anthropology) as vital background information. The foreground emphasis, however, is on the family system and its intimate workings. (pp. 17–18)

Family Science was a useful textbook for the developing discipline and reinforced the collaboration necessary between researchers, practitioners, and clinicians.

More recently, the NCFR developed a website called *We Are Family Science* (see www.family.science). The website has three tabs: What is family science?; Where we work; and How we make a difference. Here, family science students can find readily accessible information essential for helping them articulate the distinctiveness of their discipline. Such websites also help potential employers and the general public better understand the value of the field and its commitment to the ongoing interface between discovery and application.

Apparent utility as evident in mature applications. According to Burr and Leigh (1983), a fifth measure suggesting that family science is a bona fide discipline is evident in the many applications of family science. Translation is a core feature of family science vocations. Although the most oft considered family science careers include family life education, marriage and family therapy (Bartle-Haring & Slesnick, 2013), and family extension specialists (NCFR Task Force, 1988), there is a vast array of professional contexts and career opportunities available to those in family science (Hollinger, 2002; Keim, 1995; www.family.science). According to the NCFR's (2015) *Careers in Family Science*, relevant settings for application of family science include business, consumer and family resources services, community-based social services, early childhood education, education, faith-based organizations, family

intervention, government and public policy, health care and family wellness, international education and development, research, and writing and communication. Family scientists and practitioners are capable of working with a variety of client populations, some of which include children, adolescents, older adults, parents, pregnant teens, victims or perpetrators of domestic violence, substance abusers, couples, and military families (Keim, 1995). Family professionals also provide many types of service including, but not limited to, administration, community outreach, community social services, day care for various populations, case management, residential care, crisis or hot-line assistance, research and planning, and vocational and professional guidance and training (Keim, 1995), family mediation (Bailey & Gentry, 2013), public policy (Monroe, 1988), and family coaching (Allen & Huff, 2014). Many family science programs around the country also maintain their own alumni career profiles on their websites, offering an important resource for helping students of family science imagine vocational possibilities (Hamon & Smith, 2014). Family science faculty members need to constantly reinforce the way in which research and practice co-inform the work that family professionals do.

Certifications, licensures, and other such credentials are also important demarcations of mature applications of a discipline. In 1985, NCFR inaugurated the Certified Family Life Educator (CFLE) designation, the most important credential for family life educators who model translational science as they develop and improve their programs. The certification mandates a minimum of a bachelor's degree and competence in 10 specific content areas: families in society, internal dynamics of families, human growth and development over the life span, human sexuality, interpersonal relationships, family resource management, parent education and guidance, family law and public policy, ethics, and family life education methodology (NCFR,

n.d.-a). Professionals can achieve certification one of two ways: They can take the CFLE exam and pass it, or they can graduate from an NCFR CFLE-approved program and complete the abbreviated application process for provisional certification. Currently, there are 130 NCFR CFLE-approved academic programs producing graduates capable of creating, delivering, and evaluating family life education programs across the life span (ncfr.org). Hennon, Radina, and Wilson (2013) offer a history of family life education and a comprehensive assessment of the issues and challenges to this area of professional practice.

Myers-Walls, Ballard, Darling, and Myers-Bowman (2011) defined domains and identified boundaries around several types of family practice: family life education, family therapy, and family case management. They ask questions of "why, what, when, for whom, and how?" (p. 357), while delineating the work done by each of these professions. This publication is an important contribution in that it helps to differentiate professional roles and clarify several career paths.

In her comparison of family science and home economics, Vaines (1995) described family science as

> an integrative field . . . where translating theories and knowledge is an integral part of family science. . . . Counselors, home economists, family life educators, therapists are but a few of the professionals who are part of this quest. (pp. 9–10)

Unlike other disciplines that lament the lack of adequate preparation for translational scholarship at the doctoral level (e.g., see Crosnoe, 2012, a sociologist trained in basic research, who describes his need to teach himself translational scholarship), family science has fostered a long and active partnership between research and practice/policy. Family scientists make it their business to understand the dynamics and politics of the programs, the groups, and the

communities for which they conduct their research. More specifically, they have conducted translational family research that seeks to discover new ways to strengthen and protect families that in turns informs new understandings and conclusions about how families thrive.

The ability to teach or discipline a community of scholars. Because family scientists believe that both research and evidence-based practice are important for families, the family science field is well positioned to academically prepare family science professionals. As recognition of the field has grown, so too has the number of family-specific programs (Hollinger, 2002). In 1982, Love (1982) identified 51graduate programs in the family field. More recently, Hans's (2017) online program guide (formerly published as *Graduate and Undergraduate Study in Marriage and Family: A Guide to Bachelor's, Master's, and Doctoral Programs in the United States and Canada*; Hans, 2011) delineated 302 family-focused programs in North America. Hollinger also identified a number of family science programs at international universities.

How is family science different from other social science programs? At its core, family science requires "an active cooperation [between research and practice] in order for both to mutually profit and develop further" (Schwenzer & Aeschlimann, 2005, p. 184). Hamon and Smith (2014) asked administrators of family science undergraduate programs what makes an education in family science unique from other social science programs. Seventy-one respondents identified three points of distinctiveness:

1. The focus of study is on *family* and *relationships.* Respondents emphasized the importance of *family systems* and understanding family interaction dynamics. Family science also adopts *a family strengths* philosophy (Stinnett, 1979a, 1979b) when examining relationships as opposed to pathology, anomaly, or deviance.

2. Family science employs a *multidisciplinary or interdisciplinary approach* to studying families. Participants noted the way in which many disciplinary perspectives inform and shape the field (Burr, Day, & Barr, 1988; Schwenzer & Aeschlimann, 2005), as well as the importance of examining individual development and family processes from *life span* and *ecosystem* perspectives.
3. Family science emphasizes application. Respondents noted that although preparation includes intervention, there is a strong thrust toward *prevention.* Thus, family science values translational scholarship, or research conducted with the intent of using the findings to enhance the lives of individuals and families. Internships and service-learning experiences also help students to acquire and apply knowledge and develop practical skills. As such, family science often proves to be an excellent preparation for career or advanced education.

What should be taught in family science programs? Family scholars and educators have also delineated a number of desirable competencies, skills, and experiences for undergraduate (see Arcus, 1995, 1999; Boyd-Soisson & Hamon, 2007; Brock, 1987; Hamon & Smith, 2014; Keim, 1993, 1995; Smith & Hamon, 2012) and graduate students (see Duncan, 2009; Ganong, Coleman, & Demo, 1995; Koblinsky, Kuvalanka, & McClintock-Comeaux, 2006). Brock (1987) asserted that family science programs need to focus on "content and the skills needed to change family life" (p. 75), emphasizing a commitment to translation. In addition to acquiring professional skills and the competencies employers want (Boyd-Soisson & Hamon, 2007; Smith & Hamon, 2012), students should be able to articulate the skills they have acquired and how they can apply them (Brock, 1987; Hagenbuch & Hamon, 2011). Groves's (1946) call for academic

programs in the *science of marriage and family* and for scholars, practitioners, and educators who hold a unique *familial* perspective is being realized.

A consensus among professionals that the discipline exists. Most professionals admit that the discipline of family science exists, although its interdisciplinary nature makes it more complicated: It is both a discipline and "an interdisciplinary area of inquiry" (Burr & Leigh, 1983, p. 470); a discipline nested within an interdisciplinary area (NCFR Task Force, 1988). As such, older disciplines (e.g., sociology, law, economics) will continue to contribute to the family literature, just as the family discipline does. Many have promoted translational research as an interdisciplinary enterprise (Institute of Medicine, 2001; U.S. Department of Health and Human Services, 1999), so this unique position affords potential for strength and opportunity.

Family science is as relevant today as it was when the pioneers of family science declared the new discipline necessary in the early 1900s. Schwenzer and Aeschlimann (2005) emphasized that familial challenges and changes demand professionals trained to deal with family issues. They asserted that family science and its approach to research, practice, and education is characterized by "internationality, interdisciplinarity and permeability between research and practice" (p. 179). All this acknowledges the existence of family science, as well as its ability to effectively link theory, research, and practice. Family science depends on the cyclical process of discovery and application.

Accumulating history. Finally, family science also meets the eighth criteria, as posed by Bailey and Gentry (2013), because it possesses an accumulating disciplinary history. For instance, several conference presentations have outlined historical milestones and challenges (e.g., Hamon & Smith, 2010; Hans, Smith, & Kimberly, 2010). Books and chapters (e.g., Bailey & Gentry, 2013; Jewson & Walters, 1988), online resources (e.g., *NCFR History Book*, NCFR,

n.d.-c; Rubin & Settles, 2012), journal articles (e.g., Burr & Leigh, 1983; NCFR Task Force, 1988), and other sorts of publications document the history of the field. At least one poster presentation (Alexander & Hamon, 2010) visually depicted the historical accomplishments of family science, and Bailey and Gentry (2013) include a succinct table of historic milestones in chronological order. Knowledge of the historical roots of family science can serve to solidify one's identity as a family science professional (Bailey & Gentry, 2013). Further, much of this historical data reinforce family science as translational science.

The Evaluation and Innovation Stage

Precipitated by the recession in the early 2000s, Hamon and Smith (2014) asserted that family science has entered a new phase, an *evaluation and innovation stage.* The discipline's translational identity makes it as relevant and valuable as ever for the benefit of individuals, families, and communities. However, as the financial climate of higher education remains tenuous and there are increasing levels of accountability in academia, departments need to provide evidence that they are contributing to the institution's mission and meeting the needs of students. Consequently, administrators of family science programs must constantly assess the effectiveness of their programs and be able to articulate their distinctiveness and provide evidence of the value of the unique skills and perspectives attained in family science to deans, provosts, and presidents, who often determine the continuing viability of programs. Consequently, frequent assessments of the field's status are needed, and it is paramount that challenges be identified and innovative strategies to move forward be sought as the discipline and the academic programs that support it continue to evolve.

The NCFR annual conference affords a context in which family scholars can be reflexive about the field, ensuring the continued strength of this translational science. Part of that

reflexivity includes reviewing the history of the discipline, examining where we have been and how we got to where we are today. In 2010, Alexander and Hamon presented a poster titled "The State of Family Science: Strengths and Future Directions for the Discipline." They visually depicted a road lined with colorful houses and demarcated major milestones with road signs and other mile markers of the progress of the field. That same year, Hamon and Smith (2010) provided a brief history of the field as part of their presentation on initial findings from the survey of 71 academic administrators of family programs in which they inquired about the distinctiveness of family science, challenges to the field and their programs, and resources and solutions necessary to propel family science to a stronger position. During the same paper session, Hans et al. (2010) shared their examination of the name trends for family science programs, exposing the ongoing problem associated with a lack of common nomenclature. A special session that year also highlighted insights and innovations of highly successful family science programs titled "The Future of Family Science: Innovative Paths Forward" (Hamon, Trask, & Hollinger, 2010). Two years later, Ganong (2012) organized a panel of several scholars titled "'Famology' [Dead], 'Family Science' [Life Support]: How Is 'Family Studies' Doing?" at the NCFR conference. The panel, comprising Anisa Zvonkovic, Ronald Sabatelli, Randall Day, Stephan Wilson, Velma McBride Murry, and Stephen Gavazzi, presented provocative assessments on the condition of the field, generating a great deal of further discussion. These presentations, along with other informal conversations, sparked more intentional evaluation and innovation efforts.

More recently, the NCFR has taken leadership in advancing the discipline in more public ways to make more people aware of family science and its long history and value as a translational science. In August 2014, NCFR Executive Director Diane Cushman formed and

convened the Future of Family Science Task Force, comprising 13 faculty from diverse backgrounds and academic homes, as well as seven NCFR staff members. Cushman charged the Task Force with exploring three objectives in the letter of invitation for participation: "1. The establishment of a clear identity for the discipline of Family Science; 2. The enhancement of professional and leadership development initiatives within the discipline; and 3. The enhancement of the visibility of Family Science and its relevance at all levels of academia and in the public arena" (D. Cushman, personal communication, August 20, 2014). The Task Force met again at the national conference in November 2014, in May 2015, and at the national conference in November 2015, while completing considerable work between meetings. Task Force members reviewed documentation of what was done in the past, evaluating where the discipline is now, and prioritizing innovative ways to advance family science and strengthen its translational identity.

The Future of Family Science Task Force effectively responded to the needs identified by the aforementioned conference presentations made and the resulting discussions, as well as research-based publications (Hans, 2014; Hamon & Smith, 2014). One of the most tangible results of this collaborative effort was the development of the website http://family.science. The website defines family science, identifies what makes it unique, and presents an interesting array of career opportunities in the family field. The website highlights that family science is "relationship focused, multi-disciplinary, evidence-based programs and practices" that emphasize "strengths oriented, preventive, and applied" research and practice. These foci also reinforce the notion of family science as being translational in nature. This is reiterated in the career profiles, as evidence-based occupations such as individual and family therapy, divorce

mediation, immigrant and migrant family case management, and program development are showcased.

As was mentioned, another area of focus for the Future of Family Science Task Force concerned how to train scholars and administrators such that the next generation of professionals can further strengthen the discipline of family science. To that end, the Academic Administration and Leadership Focus Group within the NCFR was created. The purpose of this group, as stated on the NCFR website, is to

> provide a place for current and emerging academic leaders and administrators in the family field to communicate on a range of topics related to the short- and long-term health and well-being of family science programs, and to discuss the offering of professional and leadership development options to emerging academic leaders in Family Science programs. (NCFR Academic Administration and Leadership Focus Group, n.d., para. 1)

This group first met at the November 2014 NCFR National Conference and developed a plan of action presented at the 2015 meeting. One innovative result of that group is regular webinars that provide a forum for current and hopeful academic leaders to talk about salient issues in higher education generally and in the field of family science in particular. Another long-term result of this Task Force will be an Academic Leadership preconference, which will be held for the first time in conjunction with the 2017 NCFR conference, to provide mentorship to those hoping to either enter or to advance in administrative positions within family science. This group is rooted in the belief that the future well-being of family science is dependent on effective preparation of family science scholars to be successful department chairpersons, deans, provosts, and presidents.

Evaluative efforts report that one major challenge continues to plague the field: our name. Hans (2014) found that although some progress toward the use of the term *family science* took place in the late 1980s and 1990s, not a lot has transpired in the past 15 years, so ambiguity still exists as to which of the two terms—*studies* or *science*—is preferable, despite the NCFR Task Force's (1988) endorsement of *family science*. Common nomenclature would be helpful for locating and marketing family science programs and establishing relationships among existing family science programs that happen to be called different names. Consequently, just as the NCFR Task Force recommended adoption of *family science* in the mid-1980s, the more recent Future of Family Science Task Force, with endorsement from the NCFR Board, recommended a recommitment to adopting *family science* as the name of choice for the discipline. The hope is that family science academicians will make sure that their departments are named accordingly and that the common nomenclature will help with marketing family science to prospective students and employers.

To model the adoption of the new name itself, and with Future of Family Science Task Force endorsement, the NCFR conducted research to determine the wider degree of support for changing the name of *Family Relations: Interdisciplinary Journal of Family Studies*—one of the organization's premier journals—to the *Journal of Applied Family Science*. Feedback from the top authors who publish in *Family Relations: Interdisciplinary Journal of Family Studies* was mixed but generally not supportive of a title change. The authors suggested that a name change could be problematic if it is interpreted to mean that it was no longer an interdisciplinary journal and that only scholars with degrees in family science could publish in the journal. This troubled some decision-makers because the translational nature of the discipline requires that all authors feel part of the community of scholars around family. Other complications for a change in

journal name were that a new ISSN number would be required, essentially meaning that *Family Relations* as a journal would dissolve and a new journal would appear, necessitating the reestablishment of an impact factor. Thus, practical and structural issues made changing the name of the journal untenable for many, and only the tagline of the journal was ultimately changed to avoid these complications; the journal is now named *Family Relations: Interdisciplinary Journal of Family Science*.

Much has been accomplished in recent years to assess and advance the field of family science, while also reinforcing and emphasizing its translational nature. This work constantly reminds us of the symbiotic relationship between family science professionals dedicated to discovery and those dedicated to application; both are components of the core identity of family science as a translational science.

Conclusion

Contemplating a discipline's historical development is a worthy activity. This and other historical reviews of family science provide opportunities to reflect on and capture for ourselves the passion and commitment of dedicated scholars and practitioners who have, over the years, worked together to establish and strengthen a discipline whose mission is to enhance the well-being of individuals and families. The effectiveness of this work to enrich the lives of others and build strong families, however, is dependent on the collaboration between scholars and practitioners; it relies on translation. Family science practice, in its many forms, is more effective when it is based on sound scholarship. Similarly, researchers need to understand the work of practitioners to know the questions to ask, the data to collect, and the methods and theoretical orientations most appropriate for the population. In fact, the potential and impact of family science is at its peak when scholars and practitioners work together.

As is apparent from this glimpse of the history of family science, many factors have contributed to and sustained family science as a discipline. First, scholars from a range of disciplinary viewpoints saw the need for unique perspectives and skills to tackle real issues around the topic of family; family science was born of a need. Second, professionals who recognized the need persisted in their efforts to bring a new discipline to fruition. Third, the developmental road has not always been an easy one; challenges of various sorts have arisen over the years and family science professionals have addressed problematic issues for the developing field with a common purpose toward helping to mature a discipline. Fourth, support systems and other essential disciplinary foundations were created to sustain the discipline; the NCFR, through its conferences, journals, sections, and other member benefits, plays a critical role for those doing both basic and applied work, providing a forum for collaboration between these groups. Finally, family science is translational science; scholars and practitioners do their best work and have their greatest impact when they collaborate. In closing, we believe that ongoing assessment and reflection on the family science discipline will inspire the innovation necessary to sustain family science well into the future.

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