Minimum Data Sets for Behavioral Health Workers: An Implementation Pilot

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KEY FINDINGS

The Behavioral Health Workforce Research Center developed a Minimum Data Set (MDS) for three study populations: a mix of behavioral health occupations, social workers, and marriage and family therapists. Each MDS followed a different dissemination plan to understand opportunities and challenges associated with implementing a standardized data collection instrument. SAMHSA Regional Administrators, state licensing boards, and national membership organizations were used to disseminate each MDS. Results from the three projects indicated that respondents are generally willing to disclose information about their job settings, job functions, education, training, and licensure/certification background; although a subset of respondents consistently expressed concern about reporting demographic information. Respondents also reported a high level of comfort sharing information about their job characteristics and demographics with university researchers, national organizations representing various occupations within behavioral health, and state licensing boards, while expressing concern about sharing workforce information with the federal government and employers. Study findings highlight the potential for collaborating with external partners to implement an MDS, though further work is necessary to address barriers to widespread adoption.

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BACKGROUND

In 2007, the Annapolis Coalition reported that the United States was in the midst of a behavioral health "workforce crisis".[1] In the decade since the release of this report, a series of profound changes has placed additional limitations on behavioral health workforce capacity. Legislatively, the Mental Health Parity and Addiction Equity Act decreased financial barriers to the receipt of care.[2,3] Similarly, the Affordable Care Act, with the inclusion of mental health and substance use disorders as an Essential Health Benefit,[4] Medicaid expansion,[5] and cost-sharing subsidies have increased access to and expanded demand for behavioral health services. Yet, the supply of behavioral health providers has not kept up with increased demand.[6] The behavioral health workforce is not only hampered by an inadequate supply, but also a maldistribution of workers, particularly in rural areas.[7,8] Additionally, workforce planning in the United States is hindered by a lack of standardized, detailed, and comprehensive data on the workforce.

A Minimum Data Set (MDS) is one potential tool to improve data collection efforts for the behavioral health workforce and to further develop workforce planning. MDS documents have been developed for a variety of health care occupations, including nurses, pharmacists, and physicians.[9-11] An MDS was developed by the Behavioral Health Workforce Research Center (BHWRC) to collect standardized data for the workforce responsible for prevention and treatment of mental health and substance use disorders.[12] The behavioral health workforce MDS was developed with feedback from subject matter experts and practitioners on the data elements and themes explored in the instrument.

The purpose of this project was to test the elements of the behavioral health workforce MDS in three studies: one disseminated broadly to a mix of behavioral health occupations; one to a sample of social workers, and one to a sample of marriage and family therapists. Social workers play an important role in the delivery of health care in the United States. According to the Bureau of Labor Statistics, social workers comprise more than 40% (n=402,060) of the behavioral health workforce.[13] Marriage and Family Therapists (MFTs) are also among the core professional occupations in behavioral health. The Bureau of Labor Statistics estimates 36,960 MFTs in the U.S. workforce.[13] While there are generally standardized education and training requirements for MFTs, there is much that is unknown about this large component of the behavioral health workforce, including demographic composition, practice characteristics, job functions, and job settings.

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In addition to testing the content of the MDS, these studies provided an opportunity to test three distinct dissemination methods to better understand the challenges associated with the data collection process. Lastly, the project sought to collect data on demographics, geographic setting, occupation, practice setting, licensure, and job responsibility for these segments of the behavioral health workforce.

METHODS

The data themes and elements contained in the MDS were developed previously by the BHWRC and were the starting point for each of the data collection efforts (Table 1). In the case of the first component of the project, data collection for the entirety of the behavioral health workforce, the previously developed MDS was disseminated without modification. However, in the case of data collection for MFTs and social workers, the original MDS was adapted to meet the specific data collection needs of those occupations. In both cases, BHWRC research team members worked with partners, consortium members, and practitioners to identify and modify data themes and elements that were inappropriate or illogical for the respective occupations. For example, feedback from social work practitioners highlighted the complexity related to licensure and certification, specifically that not all states license at all levels of social work practice. From this suggestion, the MDS was modified to account for the credentials issued by a regulatory board in a state and those issued by a professional association or organization. In addition, the MDS survey asked respondents to identify their level of comfort reporting information on each of the main data themes in the MDS (Demographics, Licensure and Certification, Education and Training, Occupation and Area of Practice, Practice Characteristics and Settings) to different entities – Employer, State licensing board, National professional organization, Federal government and agency, and University researchers. Results from these questions highlight the high level of willingness to share information with a variety of different entities.

To test data elements of the full MDS, the BHWRC requested the assistance of the ten Substance Abuse and Mental Health Services Administration (SAMHSA) Regional Administrators to identify behavioral health organizations in their regions for study inclusion. Four Regional Administrators agreed to help solicit participation in the dissemination and implementation of the MDS. For Regions II, V, and IX (See Table 5 in the Appendix for list of states by region), the BHWRC sent recruitment language to each organizational contact which was then forwarded throughout each of their respective organizations. In Region VII, the SAMHSA Regional Administrator directly sent the recruitment language to each organizational contact for forwarding.

For social workers, states are at the locus of regulating practices and education. Thus, fifty separate entities hold information on licensed social workers across the United States. For this component of the project, the BHWRC research team assessed the appropriateness of collecting workforce data through a diffuse network of state licensing boards. The Association of Social Work Boards (ASWB), a membership organization comprised of the "social work regulatory boards and colleges of all 50 U.S. states",[14] provided contact information for each state's licensing board. The BHWRC sent recruitment emails to each state's board contact, inviting them to participate in the study. Three states, Arkansas, North Carolina, and Oklahoma, agreed to participate in the study, resulting in 14,655 social workers in the study sample. In July 2017, an email invitation to complete an online Qualtrics survey was sent to each social worker. Participants were offered the opportunity to enter a random drawing for one of five, $25 MasterCard gift cards as an incentive. Four follow-up emails were sent to the entirety of the sample. The survey closed in September 2017.

To test the MDS in a sample of MFTs, the BHWRC partnered with their largest membership organization, the American Association for Marriage and Family Therapy (AAMFT). An individual-level sampling plan was developed for the study, in which an age-stratified, randomized sample of 5,000 members was drawn from an available sampling frame of the 11,976 members with clinical fellow credentials at AAMFT. The AAMFT distributed an initial recruitment email to the randomized sample of 5,000 MFTs explaining AAMFT's partnership with the BHWRC, and the specifics of the research project. Of the 5,000 members who were invited to participate in the study, 125 opted out, leaving a total sample of 4,875 MFTs. In July 2017, the BHWRC sent the first of five emails inviting the selected MFTs to participate in the in an online survey. Participants were offered the opportunity to enter a random drawing for one of five $25 MasterCard gift cards as an incentive. The survey closed in September 2017.

Table 1. Summary of Minimum Data Set Data Elements for Behavioral Health Workers

MDS Theme	Data Elements
Demographics	• Name • Age • Race/ethnicity • Sex and gender • Sexual orientation • Place of birth and residence • Military/veteran status • Language skills
Licensure and Certification	• Type of job-related licenses held • Type of job-related certificates held • National Provider Identification number • State identification/registration number
Education and Training	• Degrees obtained and years of completion • Field of study/specialty • Completion of other educational programs (e.g. internships) • Current enrollment in degree program
Occupation and Area of Practice	• Primary occupation • Area of practice
Practice Characteristics and Settings	• Employment status • Number of current employment positions • Number of hours and weeks worked per year • Employment arrangement • Use of telehealth • Employer practice setting • Hours per week spent on activities (e.g., clinical supervision, diagnosis) • Clinical or patient care provision • Employment plans

RESULTS

Study 1: Full Behavioral Health Workforce MDS

In total, the full behavioral health workforce MDS was sent to 20 organizations identified by SAMHSA Regional Administrators: 11 organizations were in Region II; 5 were in Region VII; and 2 each were in Regions V and IX. There was substantial variation in the types of organizations included in the dissemination of the MDS, with most (39%, n=17) reporting that they were an ambulatory care facility or clinic, followed by 18% (n=8) as a social service or correctional facility. However, there were organizations from across the spectrum of care included in the dissemination of the MDS, including outpatient mental health clinics, recovery support services, and hospitals.

Fifty-seven behavioral health professionals participated in the survey. Respondents most frequently selected counselor (30%, n=17) and social worker (13%, n=7) as their occupation. Overall, most

respondents identified their primary area of practice as addictions and substance use disorder services (25%, n=38), mental health services (22%, n=33), and clinical services (19%, n=29).

Respondents were highly educated; 82% (n=40) reported having a college degree and 14% (n=7) reported having completed some college coursework (Figure 1). Of those who had completed a college education, most respondents reported holding a Master's degree (56%, n=27), followed by a Bachelor's degree (29%, n=14), high school degree or equivalent (2%, n=1), and some high school coursework (2%, n=1) (Figure 2). A Master in Social Work (31%, n=9) was the most frequently selected degree type, followed by counseling (24%, n=7), and psychology, marriage and family therapy, and nursing, each with 10% (n=3) of responses (Figure 3). Most respondents reported that they held either licensure (35%, n=24) or certification (35%, n=24) which was related to their job in behavioral health and 18% (n=12) reported neither being licensed nor certified.

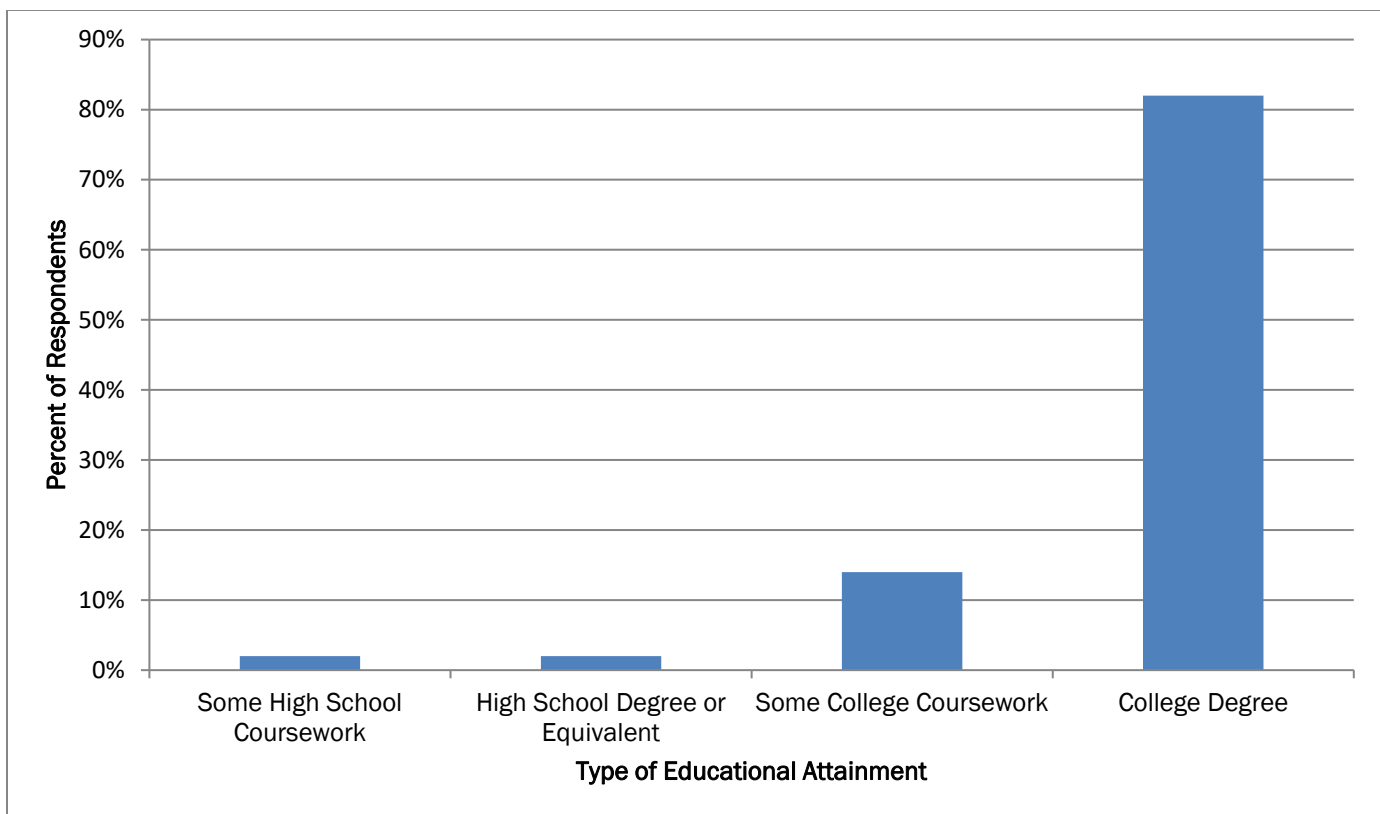**Figure 1.** Level of Self-Reported Education among Behavioral Health Workers (n=49)

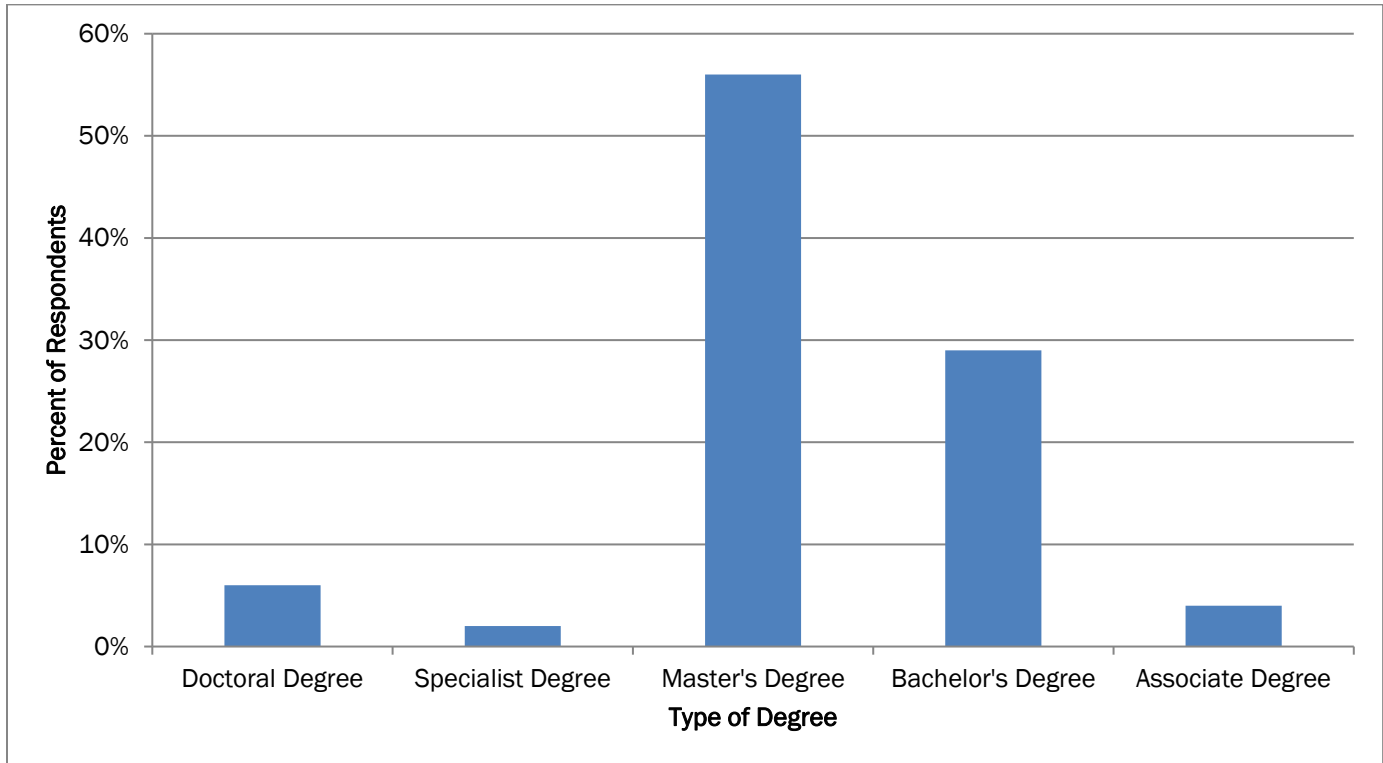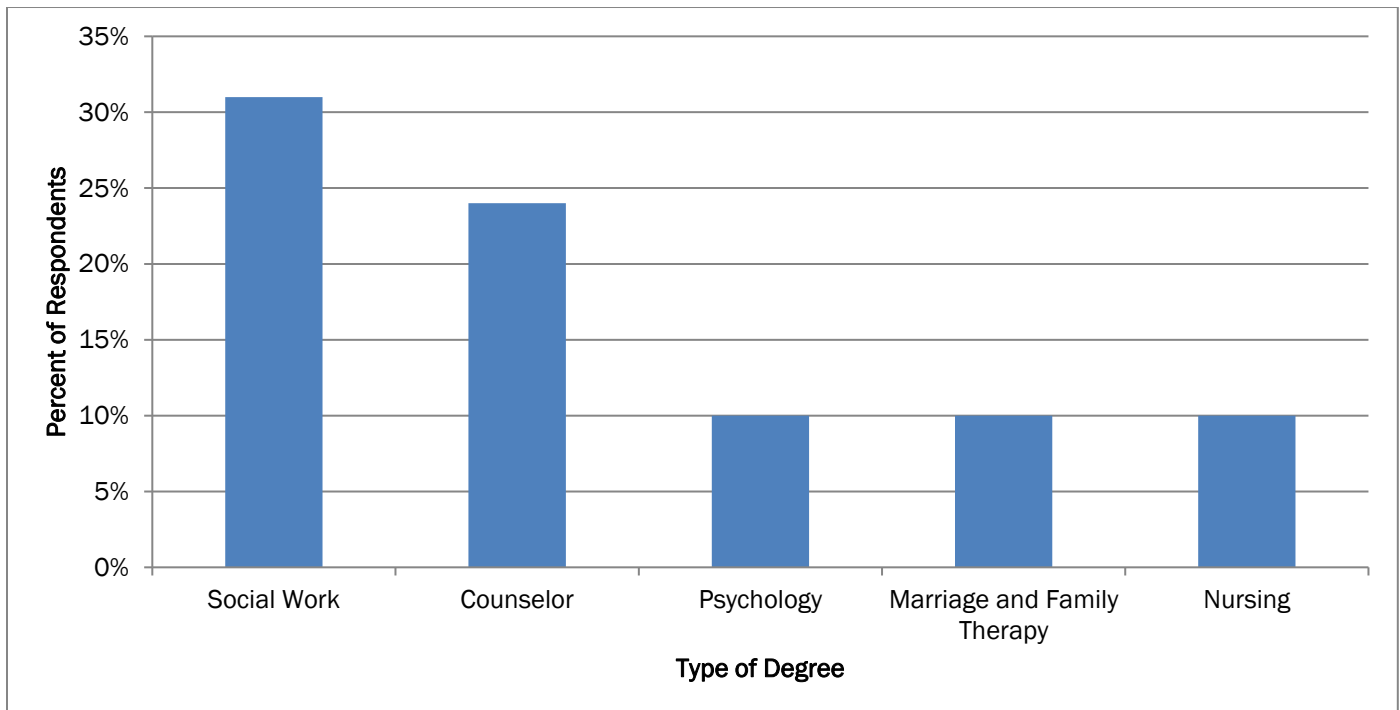**Figure 2.** Type of Degree Held by Respondents (n=48)

Figure 3. Professional Field of Master's Degree Held by Respondents (n=29)

Respondents reported that they had been working in behavioral health for an average of 13 years. Approximately two-thirds of respondents reported actively working in a behavioral health position that required professional licensure (63%, n=30) and the remaining third (33%, n=16) working in a position that did not require professional licensure. Ninety-six percent (n=44) of respondents reported that they were currently employed as a behavioral health worker in one position. Two-thirds (n=31) of respondents indicated that they were permanent salaried staff employed directly by an organization, with the remainder reporting that they were permanent staff paid hourly (n=15).

On average, respondents reported their most common job function was treatment of patients (including assessment and evaluation) for nearly 11 hours per week (n=42; Table 2). This was followed by administrative tasks, including business or program management that took an average of eight hours of work per week. There is little evidence of the use of telehealth or telemedicine usage amongst respondents as part of their normal job activities; 84% (n=38) reported never using telehealth or telemedicine and the remainder (n=7) reporting only some use in their job settings.

Respondents reported serving individuals from a wide variety of backgrounds, most frequently selecting patient characteristics as 'White' (66%, n=38), 'Adults' (63%, n=36), 'Black or African American' (61%, n=35), 'Hispanic/Latino/a' (54%, n=31), and 'Working Poor/Unemployed' (54%, n=31). Respondents were less likely to report that they served patients that are described as 'Asian or Asian American' (23%, n=13), 'American Indian or Alaska Native' (23%, n=13), and 'Native Hawaiian or Other Pacific Islander' (16%, n=9) (Table 3).

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Table 2. Summary of Average Hours Spent on Job Functions

Job Function	Total Behavioral Health Workforce (n=42)	Marriage and Family Therapists (n=372)	Social Workers (n=851)
Administrative or Program Management	8.46	5.69	11.23
Clinical Supervision (receiving)	1	0.3	6.39
Clinical Supervision (providing)	1.71	18.56	6.02
Case Management	1.76	9.91	3.81
Clinical or Community Consultation and Prevention	2.31	1.37	2.91
Disease Prevention and Health Promotion	1.21	0.34	2.66
Treatment Planning and Team Consultation	2.05	1.58	1.41
Treatment (including assessment/evaluation)	10.74	11.62	1.26
Medication Prescription and Management	1.83	0.05	0.98
Indirect (collateral) patient care (e.g. phone calls, reviewing labs, charting)	2.07	2.36	0.79
Outreach and Engagement	2.49	0.72	0.76
Research-related Activities	0.5	0.83	0.67
Workforce Development: Teaching and Training	1.19	0.94	0.64
Other Human Services (e.g. forensics, consulting)	0.1	0.27	0.37

Note: Highest number of hours shaded in gray.

Table 3. Populations Served by Respondents (N=57)

Population Type	n	Percent of Respondents Serving the Population
White	38	66%
Adults (18-64 years)	36	63%
Black or African American	35	61%
Hispanic/Latino/a	31	54%
Working Poor/Unemployed	31	54%
Rural	26	46%
Urban	24	42%
Adolescents (13-17 years)	24	42%
Displaced Persons/Homeless/Refugees	22	39%
Older Adults (65 years and older)	21	37%
Children (under 13 years)	20	35%
Suburban	18	32%
Persons with Developmental Disabilities	17	30%
Asian or Asian American	13	23%
American Indian or Alaska Native	13	23%
Native Hawaiian or Other Pacific Islander	9	16%

Sixty-five percent of respondents (n=28) reported that they were White or Caucasian, followed by 19% (n=8) who reported being Black or African American. Eighty-six percent of respondents were Female (n=38) and the remainder (n=6) reporting being Male. Ninety-one percent (n=39) of respondents reported their sexual orientation as Heterosexual or Straight, while 7% (n=3) responded that they were Gay or Lesbian. Just under half of respondents (49%, n=23) indicated that they had no lived experience with either a mental health or substance use disorder, while 23% (n=11) and 21% (n=10) indicated a mental health or substance use disorder, respectively.

Few respondents expressed discomfort reporting information requested by the MDS. Respondents indicated that they felt less comfortable sharing demographic and licensure and certification information, less than 4 percent (n=5) for both types of data themes. Additionally, there was uniform preference for sharing information with an employer or university researchers over other entities that could collect the data on the workforce.

One of the primary challenges of this dissemination and implementation plan was the low response rate from organizations contacted by the SAMHSA Regional Administrators. The BHWRC researchers were only able to collect information from organizations in four of the SAMHSA regions, which limits study generalizability. However, partnering with SAMHSA Regional Administrators continues to be a potential mechanism for future dissemination and implementation of an MDS.

Study 2: Social Worker MDS

A total of 1,256 social workers responded to the survey (9% response rate). Respondents reported a variety of different occupation titles, including Clinical Social Work (23%, n=804), Mental Health Social Work (19%, n=664), and Child, Adolescent, and Family Social Work (12%, n=425). The majority of respondents (87%, n=991) indicated that they provide behavioral health care services as part of their daily occupational tasks. Additionally, 92% (n=1,152) of respondents reported that they were currently working as a social worker, with the remainder (n=102) indicating that they were not. On average, respondents reported that they had first received a social work license in 2008 (n=966). Nineteen percent (n=70) of respondents reported holding a certificate from the Academy of Certified Social Workers, Qualified Clinical Social Worker (5%, n=18), Diplomate in Clinical Social Work (3%, n=10), and Certified School Social Work Specialist (3%, n=10).

Educational attainment was heavily skewed towards the Master's Degree in Social Work, with 97% (n=1,110) of respondents indicating that it was their highest earned degree, followed by a bachelor's degree in social work (2%, n=20), doctorate in social work (1%, n=10), and a doctoral degree in social work (0.26%, n=3). Only 3% (n=30) of respondents indicated that they were currently enrolled in a formal education program. Of those currently enrolled in an education program, 40% (n=12) were pursuing a degree in social work, followed by psychology and law. Nearly 70% (n=12) of respondents were pursuing a doctoral degree.

Most respondents (81%, n=778) reported their employment status as actively working in a social work position that requires a social work license, with the remainder working in a social work position that does *not* require a social work license (18%, n=172) or working in a field other than social work or retired (0.3% for both responses, n=3). Respondents reported working in a variety of practice settings, with the highest segment of respondents reporting working in an ambulatory care facility or clinic (21%, n=173), hospital or in-patient facility (19%, n=161), or private practice (16%, n=134). Most respondents reported that they

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were permanent salaried staff employed directly by an organization (67%, n=567), followed by permanent hourly staff (13%, n=111), and self-employed (12%, n=97). When asked to report hours allotted to daily job tasks, respondents described being engaged in activities related to treatment (11 hours per week, on average, n=850), followed by case management (6 hours per week, n=846), and administration (6 hours per week, n=845). The majority of respondents indicated that they never used telehealth or telemedicine as part of their job responsibilities. Followed by 6% (n=50) reporting using it once a month and 5% (n=43) using it daily.

Social workers most commonly reported serving patients with the following client characteristics: 'White' (61%, n=764), 'Black or African American' (56%, n=701), 'Adults' (52%, n=649), 'Hispanic/Latino/a' (44%, n=553), 'Rural' (42%, n=532), and 'Working Poor/Unemployed' (42%, n=527; Table 4). The patient characteristics which social workers reported least likely to serve in their practices was 'Native Hawaiian or other Pacific Islander'

Table 4. Populations Served by Social Workers

Demographic Group	Percent Served by Workforce	Total Number of Respondents
White	61%	764
Black or African American	56%	701
Adults (18-64 years)	52%	649
Hispanic/Latino/a	44%	553
Rural	42%	532
Working Poor/Unemployed	42%	527
Suburban	35%	437
Urban	32%	408
Older Adults (65 years and older)	32%	405
Adolescents (13-17 years)	31%	390
Displaced Persons/Homeless/Refugees	27%	333
Children (under 13 years)	26%	331
Asian or Asian American	21%	268
American Indian or Alaska Native	21%	263
Native Hawaiian or Other Pacific Islander	11%	137

Seventy-four percent of respondents (n=634) indicated that they were White or Caucasian, followed by 15% (n=124) who identified as Black or African American. 4% (n=32) identified as American Indian or Alaskan Native or preferred not to answer the question, followed by 2% (n=15) who chose "Other" and 2%

(n=13) as Asian. Less than one percent (n=2) self-identified as a Native Hawaiian or Pacific Islander. Five percent of respondents identified as Hispanic, Latino/a, or of Spanish origin (n=33). Eighty-five percent of respondents identified as Female (n=698), with the remainder (n=100) identifying as male. Eighty-six percent of respondents reported (n=730) that their sexual orientation as Heterosexual, followed by Gay or lesbian (4%, n=38) and Bisexual (3%, n=25), the remainder either preferred not to answer (3%, n=22) or chose "Other" (4%, n=32).

Social worker respondents reported a high level of comfort sharing their information with a variety of different entities. Respondents reported the lowest level of comfort in sharing their demographic data, particularly with employers and the federal government (4%, n=104). There were consistently higher levels of comfort sharing all types of information with the National Association of Social Workers and state licensing boards.
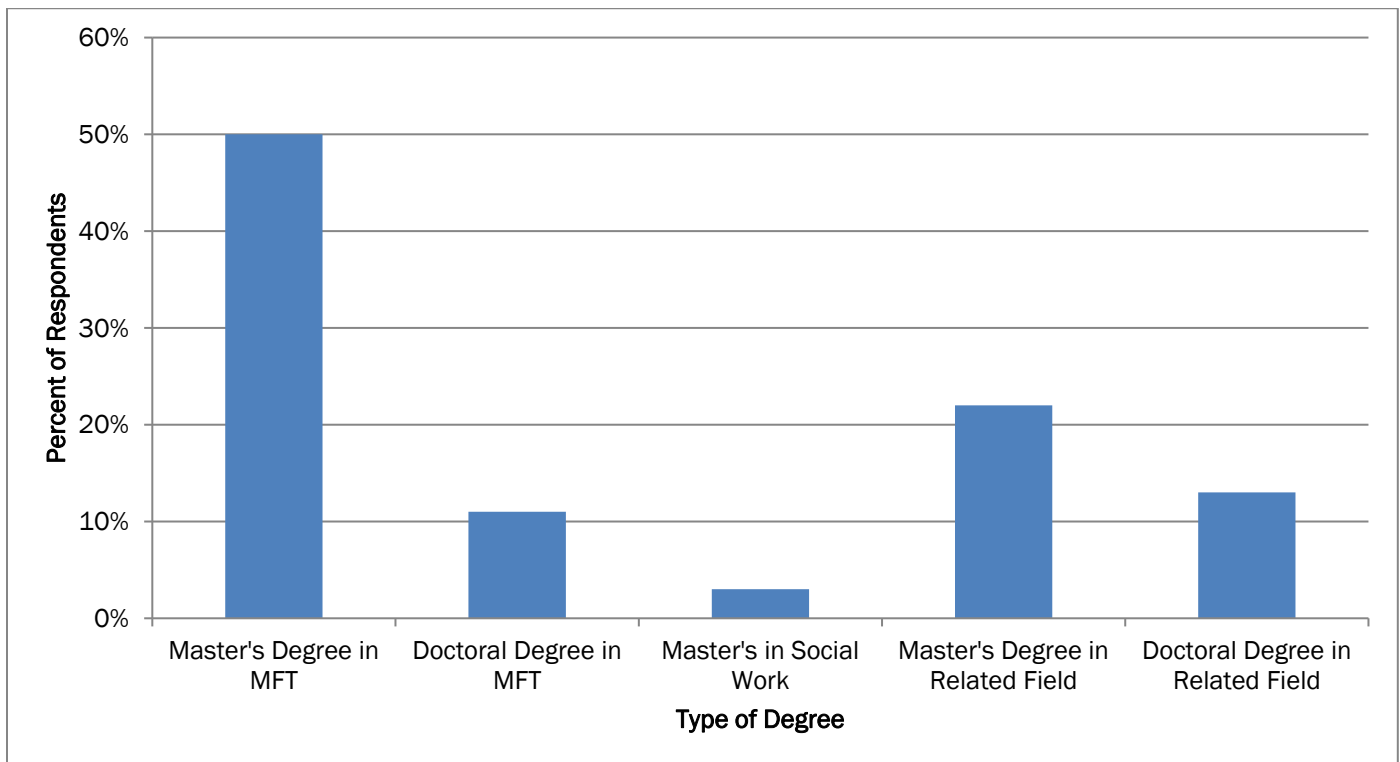
Study 3: Marriage and Family Therapist MDS

A total of 538 marriage and family therapists with clinical membership with AAMFT responded to the MDS instrument for MFTs; a response rate of 11%. While most respondents identified their profession as marriage and family therapist (91%, n=482), primary areas of practice were more diverse, including mental health therapy (26%, n=417) couple's therapy (25%, n=405), child and adolescent therapy (18%, n=290), addiction/substance use disorder therapy (9%, n=134) military/veteran therapy (6%, n=94), medical therapy (4%, n=56), and social services therapy (2%, n=34). Most respondents (89%, n=477) reported that they were currently providing prevention or treatment services for mental health or substance use disorder as part of their job.

Most respondents (64%, n=252) indicated that they provided marriage and family therapy services in a private practice setting, followed by 8% (n=33) in an educational setting, 8% (n=30) in an ambulatory care or clinic setting, 5% (n=18) in a social services or correctional facility, and 2% (n=9) in a hospital. Sixty-seven percent (n=303) of respondents reported that they were actively working in a marriage and family therapy position that requires a marriage and family therapy license. This was followed by 22% (n=97) of respondents who were actively working in a marriage and family therapy position that does not require a marriage and family therapy license, but some other mental health license. Most individuals reported that they were self-employed (58%, n=231), followed by permanent salaried staff of an organization (29%, n=114).

Respondents reported that clinical supervision was the job activity in which they, on average, engaged the most hours per week (19 hours, n=372). This activity was followed by the provision of treatment as part of direct patient care (12 hours, n=372) and case management in the provision of direct patient care (10 hours, n=372). Respondents reported that they were unlikely (77%, n=307) to use telehealth/telemedicine as part of their job responsibilities, with the remainder (23%, n=90) using telehealth/telemedicine sometimes.

MFT respondents reported a high level of educational attainment. Fifty percent (n=293) hold a master's degree in marriage and family therapy, while 11% (n=67) hold a doctoral degree in marriage and family therapy. Beyond degrees in marriage and family therapy, four percent (n=21) of respondents reported holding a master's or doctoral degree in social work; 22% (n=132) hold master's degrees and doctoral degrees in another field, including psychology, counseling, divinity/theology, and nursing. 13% (n=76) of respondents hold a doctoral degree in another related field. (Figure 5). More than three-quarters of respondents (77%, n=504) reported that they held an MFT license, with the remainder reporting holding some other health professional license (23%, n=153).

Figure 5. Level of Education among Marriage and Family Therapist Respondents (n=589)

Eighty-six percent (n=362) of respondents reported that they were White or Caucasian, followed by American Indian or Alaskan Native (3%, n=14) and Black or African American (3%, n=13). Nine percent of respondents reported being of Hispanic, Latino/a, or Spanish origins (n=29). Seventy-one percent of survey participants (n=293) identified as Female, with the remaining identifying as Male (27%, n=112). Fifty-four percent of respondents (n=227) reported that they did not have any lived experience with a mental health condition or substance use disorder, while 29% (n=124) and 6% (n=25) reported living with a mental health condition or substance use disorder, respectively.

Similar to the trends found amongst the broader behavioral health workforce, MFTs are comfortable reporting their information to a variety of different entities. Sharing demographic information was the theme most likely to elicit discomfort among MFT respondents. The most commonly listed entity for information sharing by respondents was with the AAMFT, though there was a high level of comfort with sharing information with state licensing boards and university researchers.

AAMFT was a valuable partner in the dissemination of the MDS data collection instrument. In general, such membership organizations often have existing information on the workforce and have relationships with existing members. However, there were some challenges associated with using this model to disseminate and implement the MDS. There could be communication fatigue from organizations to their membership. When collecting occupation-specific information, this model can be successful. However, the challenges of coordinating national organizations across the spectrum of behavioral health care could prove to be difficult.

CONCLUSIONS

The MDS developed by the BHWRC successfully captures workforce information that can be utilized for workforce planning. The projects undertaken demonstrate that the MDS has vast flexibility in its application as a data collection instrument. The BHWRC research team demonstrated this flexibility by highlighting how different data themes and data elements can be modified to collect information across the spectrum of behavioral health occupations, as well as for targeted subgroups. Additionally, feedback from respondents in each of the projects indicated no major challenges or errors with the design of the instrument.

Findings from this study indicated that respondents across all three sub-projects are generally comfortable sharing information; however, sharing demographic information yielded the highest level of discomfort. It

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should be noted that across all three surveys, the percent of individuals who reported not feeling comfortable reporting demographic information did not exceed five percent. There was some variation in the types of entities which an individual reported feeling the most comfortable sharing their information, including national organizations, university researchers, and state licensing boards. However, employers and the federal government were consistently the entities which respondents felt the least comfortable with sharing their information.

The results from these projects should only be considered within the populations which completed the MDS. Methods for dissemination and implementation across all three projects were marked by low response rates. These projects were not meant for, nor should they be interpreted as generalizable across the entirety of the behavioral health workforce, social workers, or marriage and family therapists. Rather, our results provide additional information on the efficacy and potential effectiveness of an MDS to improve data collection for the behavioral health workforce in a standardized, comprehensive, and detailed manner.

Results from these projects highlight the continued need to focus on the dissemination and implementation of the data collection efforts. The BHWRC disseminated the MDS through three different routes in the study: the SAMHSA regional organizations, state licensing boards, and a national provider organization. Uniformly across each approach there were challenges associated with increasing the response rate for the MDS. For the SAMHSA regions and the state specific licensing boards, it was challenging gaining partner buy-in for participation in the study. However, without the assistance of SAMHSA regional administrators, licensing boards, and provider organizations, response rates would have been weaker. Further study and resources should be focused on a dissemination and implementation strategy for the adoption of the MDS going forward.

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REFERENCES

1. Hoge M, Morris J, Daniels A, Stuart G, Huey L, Adams N. An action plan for behavioral health workforce development. *Cincinnati, OH: Annapolis Coalition on the Behavioral Health Workforce.* 2007.

2. Beronio K, Glied S, Frank R. How the Affordable Care Act and Mental Health Parity and Addiction Equity Act greatly expand coverage of behavioral health care. *The journal of behavioral health services & research.* 2014;41(4):410-428.

3. McConnell KJ, Gast SH, Ridgely MS, et al. Behavioral health insurance parity: does Oregon's experience presage the national experience with the Mental Health Parity and Addiction Equity Act? *American Journal of Psychiatry.* 2012;169(1):31-38.

4. Barry CL, Huskamp HA. Moving beyond parity—mental health and addiction care under the ACA. *New England Journal of Medicine.* 2011;365(11):973-975.

5. Garfield RL, Zuvekas SH, Lave JR, Donohue JM. The impact of national health care reform on adults with severe mental disorders. *American Journal of Psychiatry.* 2011;168(5):486-494.

6. Health Resources and Services Administration. *National projections of supply and demand for selected behavioral health practitioners: 2013-2025.* 2016.

7. Thomas D, MacDowell M, Glasser M. Rural mental health workforce needs assessment–a national survey. *Rural Remote Health.* 2012;12(4):2176-2176.

8. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Archives of general psychiatry.* 2005;62(6):629-640.

9. Federation of State Medical Boards. MDS: Physicians. 2013; https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/minimum-data-sets/physicians.pdf. Accessed November 1, 2017.

10. Association of State and Provincial Psychology Boards, American Psychological Association. MDS: PSYCHOLOGISTS. 2013; https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/minimum-data-sets/psychologists.pdf. Accessed November 1, 2017.

11. International Certification & Reciprocity Consortium, NAADAC. MDS: Substance Abuse/Addiction Counselors. 2013; https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/minimum-data-sets/substance-abuse-addiction-counselors.pdf. Accessed November 1, 2017.

12. Beck AJ, Singer PM, Buche J, et al. *A Minimum Data Set for the Behavioral Health Workforce.* 2016.

13. United States Department of Labor Bureau of Labor Statistics. Occupational Employment Statistics. 2017; https://www.bls.gov/oes/. Accessed July 24, 2017.

14. Association of Social Work Boards. About ASWB. 2017; https://www.aswb.org/about/. Accessed September 14, 2017.

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APPENDIX

Table 5. States Included in SAMHSA Region

Region	States and Territories Included
Region 1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
Region 2	New Jersey, New York, Puerto Rico, and Virgin Islands
Region 3	Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
Region 4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
Region 5	Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
Region 6	Arkansas, Louisiana, New Mexico, Oklahoma & Texas
Region 7	Kansas, Iowa, Missouri, and Nebraska
Region 8	Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
Region 9	Arizona, California, Hawaii, Guam, Nevada, American Samoa, CNMI, FSM, Marshall Islands, and Palau
Region 10	Alaska, Idaho, Oregon, and Washington