



A University-Based Transdisciplinary Approach to Mental Health Workforce Shortages

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Abstract

The purpose of this paper is to describe the development, actions, and evaluation of a university-based, transdisciplinary coalition so that the model may be replicated in other university or multidisciplinary systems. The University of Nevada Las Vegas (UNLV) Mental and Behavioral Health Coalition addresses Nevada's workforce shortages through multi-disciplinary faculty collaboration among seven training programs at UNLV that produce mental health professionals. The coalition's collaborative approach to solution-generating work has served as a catalyst for professional integration in the community as a whole.

Keywords Workforce development · Mental health · Substance use · Training

Introduction and Background

An estimated 18% of United States adult population experiences some form of mental illness (Center for Behavioral Health Statistics and Quality 2015). The state of Nevada encounters some of the highest prevalence rates of serious mental and behavioral health challenges in the nation. In fact, Nevada has been ranked at the top of the list of states with higher mental illness prevalence rates and lower access to care (Nguyen and Davis 2016), and 51st in the U.S. in mental health care (Mental Health America 2018). Likewise, Nevada is fourth highest in the nation for youth mental health disorders prevalence rates coupled with lack of access to care (Nguyen and Davis 2016). In addition, the presence of psychiatrists significantly belies the need for such services. According to the National Institute for Mental Health

and the U.S. Bureau of the Census (2017), of the 2.2 million people living in Nevada, 74,667 are severe mental health patients, with 296 beds. The entire state of Nevada has 312 psychiatrists with only 17 of those (5.4%) that specialize in geriatric psychiatry, leaving 239 patients for every one psychiatrist in Nevada.

The level of need to treat mental health and substance use disorders is substantial. It is imperative that states be able to provide appropriate care for such conditions at a local level (Hoge et al. 2016). The mental health and substance use disorders workforce in Nevada, however, is woefully underdeveloped. In a secondary analysis of data profiling of Nevada's mental health workforce, Packham et al. (2013) found that Nevada has significant shortage areas, and it has received federal Health Professional Shortage Area (HPSA) designation (Packham et al. 2013). This is consistent with similar areas with large rural areas (Nayar et al. 2017). Furthermore, an assessment of the state's mental health workforce shortages reflect that the entire population in 16 of 17 counties in Nevada resides in a mental HPSA (Griswold et al. 2017). This includes all rural and frontier regions of the state as well as urban counties. In their 2014 report, the Kenny Guinn Center strongly advocated for an immediate increase in mental health providers in the state of Nevada to address the shortcomings of the current system through creation of additional training, residency, and employment slots for mental health clinicians (Dvoskin 2015). There is a clear

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need for improvements in the mental health care system in the state of Nevada with room for growth in training, collaborative healthcare provision, and employment opportunities.

The vast number of individuals with mental health, substance abuse, and co-occurring disorders in Nevada represents a major challenge for the state's service delivery systems. The University of Nevada Las Vegas (UNLV) launched a concerted effort in 2014 to enhance mental health workforce effectiveness. The university has a research institute and think tank founded and operated through private philanthropic efforts. Leaders within the institute devoted a significant share of their time to organize stakeholder groups to develop a mental health training partnership. The research institute was tasked with supporting Nevada's behavioral health workforce and devoted resources and staff to applying for federal workforce funding on behalf of the state's clinical training programs. The institute articulated a common purpose and proposed to the Nevada Division of Public and Behavioral Health (DPBH) that they fund a cross-system partnership. The Nevada DPBH, the Nevada System of Higher Education (NSHE), and the UNLV mental health clinical degree programs share complementary visions, missions, and strengths. Previously, the university and DPBH had not worked together to address mental health workforce capacity issues consequently had minimal cross-system support of one another's efforts to train and retain the workforce. The opportunity for aligning efforts was identified and vigorously pursued. The university's clinical programs shared the common purpose of equipping future professionals with knowledge and skills necessary to intervene with individuals who are facing mental health difficulties. The programs aligned in a purposeful manner to work with DPBH and NSHE to enhance and formalize a training partnership.

UNLV offers many degree programs within several units designed to prepare practitioners entering the mental health service delivery field through a variety of professional programs. These seven units are: Department of Psychology/Clinical Track, Marriage and Family Therapy Program, Nursing, School of Social Work, Educational and Clinical Studies/Addictions and Human Services, Educational and Clinical Studies/Counselor Education, and Educational Psychology. The seven clinically-focused units worked to determine what barriers existed to building a more robust mental and behavioral health workforce. Five major development and capacity building issues were noted: (1) educational and training costs, (2) degree program capacity, (3) recruitment and retention, (4) lack of clinical supervision, and (5) lack of clinical site availability. The purpose of this paper is to describe the development, actions, and evaluation of the coalition so that the

model may be replicated in other university or multidisciplinary systems.

Project Overview and Description

Goals and Objectives

The goal of the mental health training partnership was two-fold: (1) eliminate barriers to students entering and graduating from degree programs preparing them for careers in mental and behavioral health, and (2) implement strategies that allow degreed mental health professionals to enter the workforce more quickly and sustain their service and work in Nevada. To achieve these goals, the seven training units formalized and organized the UNLV Mental and Behavioral Health Mental Health Training Coalition (hereon referred to as the coalition) in 2014. Likewise, the coalition partnership was inspired by other state and university partnership models (Easterly 2009; Peterson et al. 2009). The elements of the coalition have long been advanced and utilized by many states through mental health and higher education integrative partnerships (Annapolis Coalition on the Behavioral Health Workforce 2017; Delaney et al. 2013).

The financing structure supporting the creation of the mental health training partnership entailed a blending of resources and the leveraging of state-based grants. Via the research institute, UNLV was awarded funds from the state's Substance Abuse Prevention and Treatment Block Grant and the Community Mental Health Services Block Grant. The Substance Abuse and Mental Health Services Administration (SAMHSA) administers these noncompetitive, formula-based grants to each state to fund substance abuse and mental health services (for more information about using the block grant structure see: <http://www.samhsa.gov/grants/block-grants>). In addition to the support received from the block grant funding, some of the operating and personnel costs were covered by the university via the research institute that spearheaded the creation of the training partnership.

Activities

Operations and Meeting Schedule

The coalition is a self-governed project with faculty representation from seven clinical units mentioned above. The coalition originated with a block grant from the state of Nevada, where the Lincy Institute (an entity in Nevada to support research focused on improving the state's health, education, and social services) provided oversight. With block grant funding, the coalition hired a director to oversee daily functioning of the project and to develop a strategic plan to guide the goals and initiatives of the group,

and develop a charter to outline participation expectations of members. Upon hire at the end of 2014, the director was administratively housed in the research institute. One member from each program would attend meetings, and the coalition elected to meet twice per semester during the academic year with no meetings scheduled during the summer as some faculty were not on 12-month contracts. During these meetings the coalition review the training agenda, highlight important legislative updates, discuss grant progress and opportunities, identify areas for collaboration across campus, and develop ways to increase student engagement in projects. While the coalition is largely based on academic partnership, the coalition has actively pursued opportunities for collaboration and outreach to community practitioners as described in the following activities.

Trainings

Training has been cited by those in a particular workforce as being crucial to their development and skill building (Kies and Loos 2013; Peterson et al. 2009). Another activity of the coalition is to enhance existing training and to develop new student opportunities in line with workforce development trends. For example, in 2015 the coalition submitted a grant proposal for the SAMHSA Screening, Brief Intervention, and Referral to Treatment (SBIRT) Health Professions Student Training grant. The coalition agreed to work collaboratively on this grant as the coalition planned to integrate SBIRT into the curriculums of each of the units to a varied degree based on program and unit needs. In some cases, it would be offered as training in clinical settings; in others, it would be part of a class curriculum tailored to make it more applicable through assessment or treatment courses. The coalition was successful in obtaining the grant and at the end of year one, 255 students were trained across UNLV, two other local colleges, and professional organizations locally over three trainings. In year two, 17 trainings have been completed with a total of 401 students. Student trainees come from a wide variety of health, mental health, and allied health professions.

The coalition also developed UNLV's first graduate-level advanced seminar course on integrated health care. Coalition members reviewed course content, syllabi, and materials. Further, the coalition offered to teach different modules of the course consistent with the areas of expertise. Other mental health and medical professionals from the community have served as guest lecturers as well. The course is offered to graduate students within coalition programs in addition to incoming medical students. It has been an elective for most of the clinical mental health program students, except for social work students for whom the course is a requirement. The development of this course is also consistent with recommendations offered by Lusk and Fazarro (2006), who

highlight the value of coursework in workforce development with specific populations.

Each class is composed of lecture and small group work (called "treatment teams") on a case vignette reflecting the lecture topic. This is a key component, as it lends itself to the development of interprofessional collaboration skills needed to maintain a workforce (Kaufman 2015). Class topics are based on integrated health competencies and commonly presenting health concerns in primary care (e.g., diabetes, cardiovascular disease). In first offering the course in Fall 2015, 36 social work students and 11 clinical psychology students enrolled. The course was offered again in fall 2016 with 30 social work students enrolled. Course evaluations for both semesters revealed in general that students expressed favorable attitudes toward integrated care. The use of multiple instructors to represent a variety of health and mental health disciplines was favored by over 90% of students who have completed the course.

Integrated Grand Rounds

Another training opportunity provided to students through the coalition includes integrated health grand rounds. These are regularly occurring workshops whose purpose is to bring students and faculty from various mental health, health, and allied health professions together to discuss complex cases. Topics thus far have included reactive attachment disorder, teen sex trafficking, and working with therapeutic feedback in real time. Integrated health grand rounds are available to university faculty, students, and community providers. Sign-in sheets indicate these trainings have been attended by students and faculty from physical therapy, dental medicine, social work, marriage and family therapy, mental health counseling, and psychology.

Licensing Board Presentations

Because a significant part of workforce development is related to the licensing process, the coalition reviewed and discussed ways to connect students to licensing procedures of Nevada's mental health boards. Some departments have faculty who serve on a state licensing board and provide licensing information to students through required courses. Others are now connected with their discipline's board to have a board member present at least once an academic year to students.

Field Placements

The coalition also was charged with coming together to improve challenges faced by all programs regarding field placements (both practicum and internship). The coalition invited community-based agencies to coalition meetings to

be introduced to the seven programs and to explore opportunities for placements for students as well as develop research collaborations with UNLV. The coalition also emphasized identifying sites that have a dedicated focus on integrated health, and the coalition director sought out new placements for coalition programs. Conversations focused on developing an umbrella field placement contract with program-specific addendums to make approving sites more uniformed and efficient, especially if the site accepts student trainees from multiple programs.

Advising Guide

At the request of an undergraduate advisor in psychology, and to improve student recruitment, the coalition produced a guide to admission requirements and timelines for all graduate-level mental health training programs at UNLV. Several programs within the coalition's units provided information on their admission requirements (i.e., GRE scores, GPA, essays, etc.) as well as recommended courses for undergraduate students to take to better prepare them for their graduate programs. The coalition director combined this information into an advising guide that was disseminated to multiple undergraduate advising offices on campus. Additionally, a preface section described the mental health workforce development needs in Nevada, and the corresponding initiatives of the coalition to recruit students into the graduate-level programs.

Additional Partners

Coincident in time with the coalition forming in 2014, UNLV hired a planning dean to begin developing a school of medicine. The planning dean was introduced to the coalition at the end of 2014 and has attended meetings on a regular basis representing the UNLV School of Medicine as a supporting partner of the coalition. This relationship has encouraged collaboration between the new School of Medicine and the coalition programs as well as leading to the School of Medicine hiring the coalition director to assist with developing behavioral health programming, and serving as a bridge to the coalition programs. The School of Medicine was central in establishing the funding for this program as the dean identified mental health and substance abuse as one of the School of Medicine's core areas of community engagement given the professional shortages and high need for access to care. The dean and other School of Medicine administrators started attending coalition meetings as soon as there was a formal formation of the School of Medicine in the Nevada System of Higher Education to build collaborative relationships with main campus. The director of the coalition was then hired by the School of Medicine

in a newly-created position of Assistant Dean of Behavioral Health Sciences. In this role, the dean conceptualized the responsibilities of the role to include focusing on community engagement but also engaging the main campus mental health training programs, including operating the coalition. While the planning dean did have the funding, it is important to note that other entities did not put financial backing behind the position, likely as evidence of a lack of larger collaboration between the training programs at an institutional level. Additionally, the coalition included faculty members from Criminal Justice and Community Health Sciences who attend coalition meetings on a regular basis.

Community Connections

The coalition sponsored workshops and forums in an effort to build community relations as an extension of workforce development. The coalition created a half-day workshop on integrated health care for the community training providers as well as other primary care and mental health providers, students, and faculty. The coalition secured a national keynote speaker whose travel was covered by some block grant funding, and the coalition programs each contributed a small amount of funding to provide food for attendees. In addition to this event, the coalition director initiated a statewide forum about Nevada's workforce development in mental health in which legislators, state agencies, community providers, and other stakeholders participated to discuss Nevada's workforce needs and strategies for improvement. Two hundred and thirty people from across the state attended in person and via the web, with 80 of those viewing through event live streaming. Keynote speakers included one dedicated to discussing the state of affairs of workforce issues both nationwide and locally; a second speaker discussed the need for data development and having well trained individuals step into the workforce. Additionally, the coalition had two panel presentations, one being a mix of stakeholders from employers, education, state agency, and legislature, and the second panel composed of members from the four mental health licensing boards in the state (Psychology, Marriage and Family Therapy/Counseling, Social Work, and Alcohol, Drug, and Gambling Counselors).

Evaluation

In the second year of the coalition's existence, the coalition decided to assess one of the coalition's main objectives of increasing retention rates of graduate students enrolled in the Coalition programs by evaluating the impact of the efforts on encouraging students to stay and get licensed in Nevada after graduation. A brief, 8-item online survey was constructed to evaluate: (1) likelihood that a student would or would not stay in Nevada after graduation; (2) reasons for their

decision; (3) their current practicum/internship placement to identify potential employers of graduates; and (4) their exposure to presentations on loan repayment programs during their enrollment at UNLV. As the survey was administered in an anonymous and voluntary manner for the purpose of program development, UNLV's Institutional Review Board (IRB) determined that the survey was excluded from human subjects research statutes. The coalition director emailed the survey link to coalition faculty members to send to their currently enrolled graduate students.

The survey was administered in summer sessions of 2016 (Year 2) and 2017 (Year 3) to currently enrolled graduate students in social work, clinical psychology, marriage and family therapy, mental health counseling, educational psychology, and undergraduates in the human services program. Table 1 details sample sizes, demographics, and response rates related to post-graduation retention in Nevada for both years of survey distribution. The majority of responders

were graduate students in social work, clinical psychology, and marriage and family therapy, and over 50% of responders were in their first 2 years of study. Concerning post-graduation location plans, 61% of respondents in 2016 indicated they were 'definitely or probably staying' in Nevada. The top five reasons for staying were: (1) family; (2) recognition of workforce shortage; (3) affordability of housing; (4) career sustainability; and (5) financial reasons. In 2017, 56% of respondents indicated they were 'definitely or probably staying' in Nevada after graduation. Reasons for staying were similar to the first year: (1) affordability of housing; (2) family; (3) recognition of workforce shortage; (4) career sustainability; and (5) licensure reasons and financial reasons both tied for fifth.

Of students who indicated they were 'definitely or probably leaving' Nevada after graduation, the top five reasons for leaving were: (1) family; (2) environment; (3) going back to their home state; (4) weather; and (5) other reasons. Other

Table 1 Graduate student retention survey

Questions	Study year and sample size	
	2016 N=124	2017 N=90
Which graduate program are you enrolled in?	Social work n=37 Clinical psychology n=32 Marriage and family therapy n=20 Human services n=18 Mental health counseling n=14 Educational psychology n=3	Clinical psychology n=30 Social work n=31 Marriage and family therapy n=19 Mental health counseling n=8 Educational psychology n=1 Human services n=1a
What year of the program are you currently in?	1st year 20% 2nd year 32% 3rd year 23% 4th year 14% 5th year 7% 6th year 4%	1st year 21% 2nd year 33% 3rd year 16% 4th year 8% 5th year 4% 6th year 8%
Are you planning on staying in Nevada after graduation?	Definitely yes 35% Probably yes 26% Probably not 12% Definitely not 13% Undecided 14%	Definitely yes 24% Probably yes 32% Probably not 20% Definitely not 17% Undecided 7%
If you are planning on staying, please check all of the reasons that apply	Top five responses 1. Family 2. Recognition of workforce shortage 3. Affordability of housing 4. Career sustainability 5. Financial reasons	Top five reasons 1. Affordability of housing 2. Family 3. Recognition of workforce shortage 4. Career sustainability 5. a. Licensure reasons b. Financial
If you are planning on leaving the state of Nevada after graduation, please check all of the reasons that apply	Top five reasons 1. Family 2. Environment 3. Going back to home state 4. Weather 5. Other: to continue education (i.e., PhD in MFT)	Top five reasons 1. Family 2. Environment 3. Going back to home state 4. Weather 5. Other: to continue education/ internship; spouse's job

^a While there were a few slight differences in response rate between the 2 years, the biggest difference was the participation of 18 Human Service respondents in 2016 and one in 2017. We are unsure why Human Services individuals did not participate in this iteration

reasons included leaving to pursue educational opportunities that are not currently offered at UNLV (i.e., Doctoral degree in Marriage and Family Therapy). In 2017, respondents identified the same reasons for leaving Nevada, including: (1) family; (2) environment; (3) going back to home state; (4) weather; and (5) other reasons, including pursuing additional education opportunities that are not available at UNLV or leaving due to a spouse's work requirements.

Respondents in 2016 and 2017 were queried about their current or most recent practicum/internship placements, as the coalition wanted to explore potential links between training placements and later hiring students after graduation based on their previous work experience at their site. In 2016, the majority of students were placed in non-government agencies with 50% placed in a community setting and 23% placed in one of three campus-based mental health clinics. Regarding government agencies, more students were placed in a county agency versus a state or federal agency. Results in 2017 were somewhat similar with 43% of students placed in a non-governmental community agency and 32% placed in campus-based mental health clinic. More students, however, were placed in a state agency versus a county or federal agency when compared to 2016.

Overall, a majority of enrolled students expressed a preference for staying in Nevada after graduation. Areas for continued work by the coalition also emerged from these surveys. It is a positive sign that students are aware of the workforce shortage in Nevada, so the coalition capitalized on this awareness to increase retention through program development and relationship building. Through program development, the coalition will continue to look at adding or revising programming and curriculum to meet student needs, especially concerning students leaving Nevada after graduation to Doctoral programs or internships that are not readily available in Nevada. Additionally, retention can also be improved with better education about loan repayment programs that connect early career mental health professionals to underserved areas in Nevada. The coalition need to explore expanding the workforce pipeline through strengthening relationships between the university and employers, especially those that act as training sites. The coalition recommend surveying alumni from the coalition programs, which would be informative to evaluate any connections between training sites hiring former practicum/intern students. All authors certify responsibility.

Faculty Reflections and Vision

As the authors prepared to write this review of the coalition, members were asked to reflect on the coalition's history, progress, and impact. The following represents a qualitative summary of members' responses.

Subjectively, the coalition was a cultivation of desperation that had been mounting since the economic crisis of 2009. Few, if any, cities were as heavily hit as Las Vegas and the university was reeling. Over 700 positions at UNLV were eliminated and entire programs were cut. The seven mental and behavioral health units had limited resources to meet the respective training missions for their programs while also contending with a statewide mental health crisis in need of an improved behavioral healthcare workforce pipeline. After the recession, it became clear that continuing to work in silos without coordination was not a viable path forward. The coalition needed to maximize resources to address challenges in degree program capacity, recruitment and retention, clinical supervision, and clinical site availability. Prompted by community pressure to find solutions, representatives from each of the units began meeting in the spring of 2014.

In coming together, the coalition discovered similarity in the programs' challenges. The coalition members shared a sense of feeling invalidated and overlooked, combined with limited training resources and little time to dedicate to tackling larger, necessary, projects (e.g. building curriculum in integrated behavioral health care to align ourselves with emerging trends in health care delivery and evolving standards of accreditation; increasing capacity to serve a community where nearly 190,000 households are Spanish-speaking). Feeling validated in a shared experience, the coalition members were empowered and energized to collaborate and have a unified voice with an enhanced campus presence. As one coalition member shared,

“It helped us to feel less isolated and more connected to the people at UNLV who do similar work... to feel validated in our concerns about mental health care in Nevada. It helped our students to become more connected to the students in other programs; and enhanced the culture in our program to think of ourselves as mental health practitioners instead of isolated MFTs. I think the students understand and feel a part of the broader picture of mental health care in Nevada now. It helped us to develop a better sense of professional community.”—Marriage and Family Therapy Faculty member.

Simply coming together, however, was not enough. Coalition representatives were overextended by primary demands of their training programs. It became clear that the work of coordinating efforts of the mental and behavioral health training programs in an ever-evolving field was itself a full-time job. Obtaining funding to hire the coalition's director was critical to the success and sustainability. The director embodies the spirit of the coalition in the ability to study the respective professional puzzle pieces that each member represents, and determine how the coalition members' unique contributions fit together within the nested systems

of the university, the community, and the state. Concretely, the director has dedicated time to serve as the central point of contact for communication and coordination of a range of activities that heretofore had never been accomplished. Under the director's leadership, initiatives ranged from the relatively simple (e.g. organizing annual workshops for students regarding loan re-payment programs; coordinating interdisciplinary grand rounds; offering trainings in legislative advocacy and monitoring legislative initiatives that impact the work) to the more complex (e.g. identifying opportunities and leading efforts to expand clinical degree program capacity such as creating and teaching the first ever cross-listed, co-taught graduate course in integrated behavioral health; facilitating feasibility studies for expanding degree and certificate programs; increasing available practice and internships).

The coalition's collaborative approach to solution-generating work has served as a catalyst for professional integration in the community as a whole. As mentioned above, the coalition sponsored a statewide work force development forum in the fall of 2016. During the forum, representatives from each of the mental and behavioral health licensing boards were invited to present on a panel to discuss the role of regulators in promoting workforce development and to address recent criticisms lodged against boards with respect to inefficiencies in licensing. A lively collegial question and answer period followed, which culminated once again in shared experiences and commitment by panel members to re-convene as collaborators to improve efficiency in licensing qualified mental and behavioral health professionals across the state. The coalition members believe that integrative efforts are essential for moving behavioral healthcare forward, particularly in a state like Nevada where resources pale in comparison to the magnitude of need for quality mental and behavioral healthcare services.

With a unified voice and successful endeavors, the coalition captured the attention of university administrators and expanded options for training and research. The administrators recognized the value of the coalition, and the director's salary will be sustained by the School of Medicine. With this promise of stability, future initiatives are taking shape. The coalition supported the development of a shared specialty certificate centered on providing mental and behavioral health services to Spanish-speaking populations; the creation of an Integrated Behavioral Health Care degree; and lead a steering committee to redesign and implement a cross-discipline curriculum in addictions treatment and research.

The story of the UNLV Mental and Behavioral Training Coalition is a story about resilience and the power of connection. The interventions that have contributed to its success mirror those that the coalition recommend to the patients and clients. When they encounter feelings of loneliness and

isolation, the coalition encourage connection. When they encounter challenges, the coalition encourage resilience. Similarly, the coalition was born from individuals who were feeling discouraged, fragmented, and underutilized as they took on the mental health crisis in Nevada. Resiliency was discovered in coming together, pooling resources, and building networks of support.

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Compliance with Ethical Standards

Conflict of interest The authors report no conflict of interest.

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