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Elizabeth B. Kavanaugh

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Information Literacy, Mental Health, and Lifelong Learning: Librarians and Health Care Professionals in Academic, Clinical, and Hospital Settings

Elizabeth B. Kavanaugh

Information Literacy and Assessment Librarian, Mary Kintz Bevevino Library, Misericordia University, Dallas, Pennsylvania, USA

ABSTRACT

Ongoing education in mental health literacy offered by academic, clinical, and hospital librarians paired with health science professionals presents ideal opportunities for continued improvement of practical, lifelong skill sets in research and mental health literacy. This review synthesizes where academic and hospital librarians have been integral in providing information literacy instruction for health science students and medical professionals; information literacy has transformed theoretical research into practical and lifelong opportunities for practicing mental health literacy; and medical professionals transfer prior information literacy and evidence-based practice training to mental health literacy as workplace practices in hospital and health care settings.

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Introduction

A wave of interest in mental health awareness has taken root in the United States in response to a public health crisis and decades of neglect. Mental health, according to the World Health Organization, is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community (1). By comparison, the United States National Library of Medicine considers mental disorders or illness to be psychiatric illness or diseases manifested by breakdowns in the adaptational process expressed primarily as abnormalities of thought, feeling, and behavior producing either distress or impairment of function (2). Mental disorders, long pushed to the margins of health care's focus, are now reported to affect one in five Americans with one in 25 diagnosed with a serious mental illness annually (3).

Suicide accounted for almost 38,000 deaths recorded in 2017, of which 20,975 were able to be coded to national standard occupational classification categories (4). Female professionals in health care ranked among the seven occupations experiencing highest levels of suicide based on occupational

CONTACT Elizabeth B. Kavanaugh ekavanaugh@misericordia.edu Information Literacy and Assessment Librarian, Mary Kintz Bevevino Library, Misericordia University, 301 Lake Street, Dallas, PA 18612, USA.

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population; Health Care Support (nursing, psychiatric, and home health aides), and Health Care Practitioners and Technical (registered nurses), ranked sixth and seventh, respectively (4). Additionally, amongst male physicians, the risk of suicide is 1.41 times greater than that of the average male population, while among female nursing staff the risk of suicide is 1.58 times greater than those outside the field (5,6). Now more than ever as frontline workers face unprecedented responses to the novel coronavirus disease (COVID-19), aspects of mental health difficulties are being experienced by professionals in all fields, from nurses to physicians to surgeons (7–9). What is and can continue to be done is more critical than ever to address aspects of burnout, depression, post-traumatic stress disorder, suicide, stress, and isolation which grow with no end in sight for professionals in both inpatient and outpatient settings (10,11).

While the issues of mental health and suicide prevention are complex to treat in combination with existing comorbidities, information literacy extended through mental health literacy can diminish these astronomical rates, highlighting instead the individual's ability to identify, seek, access, and apply mental health care. In this review, scholarly resources are presented as opportunities for future research, to identify gaps in current practice, and create intersections where strategic partnerships can be formed between library and health care professionals to improve the current status of mental health literacy. This review additionally offers possibilities for hospital and health science librarians as well as professionals in health care to reflect on current practices from the literature, advance information literacy through education in mental health literacy, and improve mental health literacy in professional health care settings. Armed with this information, even soon-to-graduate and recently graduated students can enter their fields better equipped to handle not only patients with mental disorders, but also their colleagues' own mental wellbeing as well as their states of mental health.

Information literacy

In the academic health sciences setting, information literacy has long stood as a pillar of critical evaluation of health science research, even considered as a cornerstone leading to the evidence-based practice (EBP) trinity of practitioner expertise, systematic research, and patient preferences (12). Information literacy is currently defined by the Association of College and Research Libraries (ACRL) as the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge while participating ethically in communities of learning (13). Within the context of medical and allied health departments, health science librarians engage with students as they begin their journey as information literate learners, and later as fully developed,

exemplary practitioners in their academic careers and clinical placements (14–18). Faculty who develop their departments' reaccreditation plans, many of which now include an information literacy component, welcome this mutually beneficial partnership (12).

Collaborative opportunities between health science librarians and faculty show promise pairing the Framework for Information Literacy for Higher Education with EBP expectations in their fields (19,20). Students' abilities to grow from novice to advanced learners in their areas of health and medicine throughout their lifetimes – and not just while completing their academic work – can benefit from ongoing information literacy training as part of lifelong continuing education goals. As underlying concepts of EBP (practitioners' expertise; patients' preferences; a systematic review of evidence) and information literacy (individuals' need for information; systematic access to reliable resources; evaluation, synthesis, and application of information to the individuals' knowledgebase) are linked, a natural connection of health sciences librarians to provide the instruction in this arena highlights the importance of systematic research to clinical decision-making (18,21).

Health science graduates joining the workforce depart their universities with some information literacy competencies paired with EBP, but ongoing training is required to maintain and improve those skills with clinical application in the professional realm, as the longevity of such contextualized instruction is currently undetermined (22–24). Continuous professional development in support of lifelong learning and EBP is necessary and best provided by health science, hospital, and clinical librarians. In addition to ongoing training in the conduct of literature searches, article retrieval, evidence summaries, and computer literacy for health professionals, librarians have preestablished abilities for effective instruction that blends information literacy with EBP (24). Librarians can and have partnered with allied health and hospital staff to deliver classroom and clinical instruction, plan curricula, and assess performance, with better outcomes than those taught by non-librarian instructors in the delivery of information literacy and EBP instruction to find, evaluate, and use information in the clinical setting for a specific purpose (19–21). This supportive partnership has grown with recommendations from research and site administrators who have recognized health science librarians for their abilities to develop learning objectives specific to the task at hand, and work with teaching and medical faculty, administrative committees, residency coordinators, department chairs and deans, and other organizational officers (19,21,25).

For health care professionals seeking expertise in their field, proven information-seeking abilities such as database searching, article evaluation, and research application are often taught in the classroom by academic librarians but honed most effectively where their professionalism can be assessed via patient outcomes (20,21,24–30). Sheer recall (or transfer) of information literacy skill sets from undergraduate and graduate years of study can be

eclipsed by knowledge acquired through other continuing medical education opportunities such as journal clubs, conference attendance, professional programs, or specialized certification (12,22).

Simultaneously, medical and hospital professionals who are further along in their careers may be unaware of the skills they are missing without individualized information literacy training addressing EBP, especially if their newly-graduated peers are more recently trained in those research concepts (23,30,31). Several studies have pointed to the benefits of incorporating online training in information literacy with librarians in a post-graduate setting, suggesting a *classroom without walls* model that can be accessed in the location and schedule that is of most benefit to the adult learner (21,23). In alignment with the current ACRL Framework, research inquiry and information creation emerge throughout the course of a professional's career of clinical practice-based experiences prioritizing knowledge and comprehension over the acquisition of specific skills outside of the classroom setting (19).

Barriers to health literacy

Health literacy as defined by the Institute of Medicine is considered the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (32). Not only is this definition a guidepost by which recent graduates can incorporate health literacy into their work as caregivers to their patients, but also as health consumers themselves. Despite the best intentions of an information-literate individual to grow and develop EBP skill sets, often the fear of the unknown is enough for them to create discomfort for the lifelong learner as new information can contradict past health-based experiences (33). The hesitancy of long-tenured hospital professionals to embrace new information, or for new graduates to admit clinical inexperience, may be enough to avoid a learning scenario entirely. Feelings of fear, unease, anxiety, uncertainty, and coping mechanisms can be tied to information-seeking behaviors in general and more specifically to those linked with health-related information. Those same fears can impact how information is accessed during such a negative affective state and the subsequent emotional state once they are (34). Often obtaining, processing, understanding, or admitting ignorance over one's own health situation is more daunting than diagnosing a patient with the same condition. Case et al. report that tendencies toward fatalism and avoidance can short circuit any information seeking at all from topics ranging from medical diagnoses, to genetic research, to individuals becoming self-sufficient, life-long information seekers entirely; this applies to health care professionals doubly as both caregiver and patient in their applications of health literacy (33). The foundation set by health science librarians through information literacy instruction extends to the specialty concept of health literacy, and by extension

mental health literacy, although there is a dearth of research currently connecting these skill sets.

Mental health literacy

Mental health literacy explores one's ability to recognize and obtain assistance even when instruction, intuition, or past experience may have been inadequate or altogether absent. Even though mental health literacy was coined in 1997 as knowledge and beliefs about mental disorders which aid their recognition, management or prevention, it was never fully integrated into the concept of health literacy, even with the consumer health movement of the 2000s paving the way for the personalization of health and wellness programming (35). While health literacy has been proven to be effective in reducing medical costs over time, improving efficiency in the workplace, and advancing many prognoses, the incorporation of mental health within this literacy component is currently limited as a standalone concept apart from health literacy in general (36–38).

In the absence of mental health, in this case, current students and future graduates of health sciences programs are positioned to extend their information literacy skill sets to patients, colleagues, and themselves through health and mental health literacy as a bridge over this gap. Health care providers trained during their academic careers in information literacy can focus information-seeking, evaluating, and transferring skill sets to the mental health literacy of their patients thereby empowering patients to recognize their own abilities in the mental health conversation from their very first interaction (35). With academic progress often comes the realization of higher levels of information and health literacy, providing those literate individuals with the ability to become more aware of physical and mental health concerns of themselves and others (39). Educational settings are ideal environments that enable health care professionals to identify warning signs of depression, encourage help-seeking behaviors, and reduce stigma surrounding mental health care (40).

Librarians as academic leaders of care through literacy empower students to seek, access, and apply information that is relevant to the students' practical studies which will one day become EBP care in their fields. At the heart of health and mental health literacy are the abilities of individuals to use newly found information to access better health services and engage in more health-positive conversations with their care providers, which is reminiscent of the foundation set by librarians as significant consumers and disseminators of health information (36). The ability of mental health-literate medical staff to identify disorders in others (and themselves), empathize with those experiencing mental health disorders, and participate in non-stigmatizing behaviors (whether they are advocating for their own wellness or others') can be the first step in initiating wellness (41).

Mental health literacy, developed from similar skill sets initiated by librarians through information literacy instruction, provides more authoritative, reliable, relevant, and timely results than the peer-, family-, or web-based results that most information-seekers prefer today (41,42). What had been information-seeking activities translate into help-seeking behaviors with real-life consequences in the workplace for health care professionals and patients (34,43,44). Access to reputable information on mental health care can be riddled with barriers, from basic literacy and comprehension of the material to lack of health insurance coverage for extended mental health care. For instance, a university student may have fear, discomfort, nervousness, or anxiety when exposed to new information in the academic setting. Identical feelings of emotional distress can extend to individuals who recognize their literacy deficit, feel shame, and are unable to admit their lack of understanding even if asking for help could lead to improved health (36). Librarians and health care professionals can continue to provide health and mental health literacy offerings with true care and concern, and their command of knowledge can enable individuals to acquire the power necessary to take control of their own bodies – and minds (32). An individual who can recognize a mental health disorder, yet lacks familiarity on the subject and fears stigmatization, will be less likely to seek treatment and may feel unsure in private attempts to seek information on their ailment (36,38,39). Researchers have found that about 70% of individuals with a known mental health disorder do not seek help for the above reasons (42).

Role of librarians in clinical and hospital settings

Librarians have a long precedent of providing basic health literacy instruction to their students and research communities in conjunction with more in-depth, information literacy-rich coursework. Equipped with a librarian-guided education received during academic coursework in health literacy, recent graduates entering clinical and hospital rotations can apply their literacy skills in the face of situational structural barriers, often called *social determinants*, of health when they meet with patients face-to-face (36). For those clinical and hospital professionals who may be out of the academic setting for a number of years, continuing education provided by universities and colleges in their area, ideally delivered by librarian-faculty or librarian-health professional dyads, can offer the inroad to furthering mental health literacy competencies. Continuing education opportunities may be found at local colleges and universities, through professional organizations, or even within hospital or clinical settings themselves.

Steele and Tiffin describe clinical librarians as *knowledge brokers* in their relationships with medical staff in psychotherapy (30). This partnership creates an embedded dynamic between clinical librarians and health care

professionals for the provision of EBP care, interactions by way of clinical forums, consultations and supervisions, continuing professional development sessions, and the production of evidence summaries specific to individual patients, wider clinical problems, and managerial work systems. In supporting their Psychology Research Structure, the clinical librarian's involvement impacted clinical advice, services, and presented new information with regards to patient care and treatment (30). In the realm of psychotherapy itself where clinicians' information needs are inherently personal and require a personalized response from the clinical librarian, this partnership is essential to the mental health care of patients and the success of the clinicians (30).

Mohaghegh et al. similarly relate that clinical librarians have specialized skills for searching, accessing, and summarizing EBP resources which have a practical impact on clinical decision-making, treatment behaviors, and searching behaviors on the clinicians and residents with whom they work and provide instruction (29). McKeown et al. and Morris et al. also describe the success of early involvement and instruction between hospital librarians with the medical research team which shapes the research question and saves the team time (28,45). Additional research has confirmed that the involvement of a clinical or hospital librarian early on as part of the care team has positive outcomes on patient satisfaction, promotes beneficial environmental factors, impacts point of care delivery of information, and supports group participants' information searching and retrieval behaviors in the future (25,46). In the case of support groups, hospital librarians were front and center in leading the group presentations, providing instruction, and increasing visibility of information services through outreach in and around their hospital's community (46).

Librarians with expertise in the health sciences have led the charge outside of the clinic, hospital, and academic setting with professional organizations like the Network of the National Library of Medicine (NNLM) and the Medical Library Association (MLA). Offering webinars and continuing education opportunities through online trainings, instructional librarians have specialized knowledge in the field of mental health or pair with medical professionals who deliver resources and instruction geared toward topics of mental health and wellness in virtual environments. The NNLM has presented the following programs in relation to mental health, the roles of librarianship, and organizational resources: *Caring for the Mind: Providing Mental Health Information At Your Library; Taking Care of Us: Inreach for Library Staff; Suicide Risk Assessment: Tools for Providers and Resources for Patients*; and *Just Talk About It: Using Mental Health Education to Prevent and Treat Substance Use Disorder* (47). Current critical instruction by librarians via the NNLM's *Mental Health Awareness During COVID-19* and a longer course on *Wellness in the Workplace* demonstrates the relevance to mental health literacy in response to the COVID-19 pandemic. The MLA offers ongoing articles through MLAConnect that often relate to topics on mental health. A recent

series, *Consumer Health: Emotional Health in the Library*, addresses trauma-informed libraries and emotional labor, relating expertise of library staff who are helping others with mental illness (48). Pearson relates that library awareness, resources, and programming can help to promote flexibility and resilience, and harkens to bibliotherapy practices which have been used to treat mental health conditions, anxiety, depression, disruptive behaviors, and offer options for cognitive behavioral therapy (48,49).

In the academic setting, Chapman Learning Commons Assistants at the University of British Columbia post frequently to the Learning Commons blog. Among most recent topics are mental health for students', their social lives, academic participation, and mindfulness as avenues for mental wellness (50). Moving forward to integrate mental health literacy with instruction, opportunities for ongoing partnerships between librarians and medical professionals are already primed for authentic mental health literacy interactions in EBP practice as well as in the workplace.

Improvements for clinical and hospital workplaces

Inpatient and outpatient facilities investing in mental health initiatives through workplace interventions can find a plethora of avenues through database instruction and web-based technologies developed by those holding a background in information literacy. An ideal scenario would be to include recent graduates in the development of a mental health intervention delivery platform, whether in a traditional instructional setting or online environment (41). Most mental disorders (70%) can be diagnosed before an emerging adult reaches the age of 25, which perfectly positions college-aged and recent graduates to actively participate in mental health literacy initiatives, given the information literacy skills they ideally receive as part of their academic studies (51). Today's hyper-connected online culture with access to tremendous amounts of information in many domains especially in the field of health care, reveals that users still need to partner with credentialed experts who offer additional knowledge, experience, and access to certain services that remain under their control (52). The emphasis here on user-centered design and feedback during the development of online tools, in particular, is critical to fulfil needs more efficiently and effectively in promoting mental health literacy interventions that are appropriately engaging, intuitive to use, and pleasing to the intended user population (53,54). The generalizability of these mental health literacy interventions will also reflect their scalability to a larger population in need of meaningful online tools similar to those already created for behavioral modifications such as weight loss, depression, and smoking cessation (53).

Even with increased health and mental health literacy, those seeking information outpace those seeking help, and new approaches to personalized mental health care interventions are still needed in the health care community (39). For ongoing, lifelong support in information literacy instruction and continuing

education, health care professionals have found the most success retaining and improving information literacy and EBP searches if they participate in multiple librarian-led sessions (55). Apart from patient-centered or research-based online searches including databases, the abilities conveyed by librarians in an information literacy instructional session build transferable skills for students to access, understand, and use, creating new knowledge and participating ethically in communities of learning, which is even more applicable in scenarios related to mental health (13). LaMontagne et al. address psychological aspects of mental health literacy in the workplace as areas for identifying work-related factors, promoting mental health, and addressing mental health problems regardless of cause by introducing the opportunity for a new approach to mental health literacy (26). Additional researchers suggest that librarians are primed to offer educational interventions through coordinated online and face-to-face educational offerings that have been proven successful in improving information-seeking, searching, and retrieval skills more effectively than those of non-librarian instructors (21,24).

Through information literacy, clinical- and hospital-based professionals learn to act critically on the information they find and apply EBP to health and mental health literacy as an example of practical integration of skills (31). In fact, there has been an increased openness of individuals to seek mental health treatment as well as willingness to discuss mental health issues with their care providers, reflecting a change in attitude and mental health knowledge (39). Even with that increase, the ethical predicament of presenteeism creeps into the clinic or hospital workplace when employees continue to work when mental health care should be sought instead, and patient outcomes can suffer in the meantime (38,56). Employees who are overwhelmed by their workloads can fall victim to a double-edged sword: professionals may be victim to a hero mentality and refuse to seek help to maintain an image of professional competence or even be uncertain of their own undiagnosed condition; and professionals buried under their workload may not recognize that their colleagues are in peril (38). Professionals who do seek help can feel stigmatized; often, they must seek help using vacation time because they lack the support of their organizations (31,38). Mental health literacy training in the health care workplace can directly assist in helping to recognize when help is needed, and how to respond to a mental health care challenge even when policies or protocols are not specifically dictated by the organization (38). Mental health literacy trainings can not only help coworkers identify and communicate when mental health challenges are observed in their colleagues, but also reduce potential ostracization and stigma associated with those challenges (57).

Organizational response

By recognizing the mental health of others, clinic and hospital staff can mitigate compounding factors of workplace stressors including technostress (feelings of

hyper-connectivity with others via e-mail, social media, online, and phone presences) that result in an inability to cope with those technologies in a well-balanced way via workplace mental health literacy initiatives (58). LaMontagne et al. recommend a common definition of workplace mental health literacy as knowledge, beliefs, and skills that aid in the prevention of mental disorders in the workplace, and the recognition, treatment, rehabilitation, and return to work of working people affected by mental disorders (26). Organizational priorities must be given to support health care professionals in acquiring the help they seek, and continuing education to their employees in mental health literacy as well as EBP care, whether they are recent graduates or long-time practitioners (31). Many hospital departments, clinical administrators, and supervisors already encourage health professionals to include librarians as part of care teams when learning to explore medical databases, conduct evidence summaries for patient care, or modify treatment behavior (21,29). Clinical and hospital administrators have noted where librarian partnerships maximize budgets, improve clinical decision-making, save clinicians time, address EBP instruction for employees and especially senior staff, reduce clinician burnout, improve patient care delivery, strengthen access to resources and evidence, and improve patient satisfaction and outcomes (12,25,27,28,30,45).

Specific attention granted to medical professionals with regards to burnout includes symptoms of emotional exhaustion, depersonalization, and a sense of reduced personal accomplishment, or prolonged response to chronic interpersonal stressors on the job (59). Among the available interventions for reducing burnout are stress management and self-care training, continuing educational opportunities in EBP, funding for coverage during shifts when professionals are released to seek help, institutional support and awareness, and small-group trainings (31,59–61). From an organizational perspective, the Accreditation Council for Graduate Medical Education suggests that addressing burnout through a *culture of well-being* could be the first step in recognizing where assistance is needed – the very same first step for becoming more literate in mental health (59,62). Opportunities for small-group training led by librarians in information or mental health literacy can improve personal awareness, information-seeking behaviors, and critical reflection with collaborative individual, team-based, or organizational support.

The personal touch of literacy and EBP instruction tends to still be at the forefront of research, even with the availability of online resources. Person-to-person therapy or group settings often have the most successful outcomes in mental health trainings, especially if they are supported by the health care provider's employing organization. Organization-sponsored mental health literacy initiatives can be offered through team-based approaches inclusive of librarian-led instruction, early recognition programs, continuing education, help-seeking programs, and return-to-work assistance when the employee is ready (26).

Future recommendations

The ease of access to online mental health resources can be greatly appreciated by some whose reluctance to seek aid due to professional stigma or duration of intervention are instead mediated through Internet-based cognitive behavioral therapy, self-compassion initiatives, and mental health applications (63). Recent university graduates are of a population who grew up preferring peer- and family-based interactions when seeking information, rather than necessarily seeking professional assistance. They may have additionally received school-based interventions already in mental health literacy during their earlier academic years and therefore are more aware of what is already available to mental health (42). In contrast, clinical and hospital professionals who have been in the field for a number of years may not be aware of (or have access to) all of the newer sources of information and mental health literacy support, whether from an informed professional librarian, peer, or online resource. Similarly, they may find this proliferation of technology overwhelming, stressful, and exhausting on its own if not moderated helpfully by a trained information professional such as a librarian (42,58,64).

Recent graduates are often exposed to online curricula that encourage mindfulness, empathy, resilience, and engagement early in their academic careers, which can be beneficial to revisit after graduation for ongoing assessment as well as an opportunity for more long-term professional participation. This style of online training comprised of EBP-based film clips, directed questions, articles, and readings, for instance, has professionals reflect on their practice of engagement after an educational intervention, peer/social relationships with coworkers, and maintenance of empathy throughout the workplace (65). Mindfulness training, as an example, has likewise been found to negate the impact of workplace-based emotional exhaustion, burnout, depletion, and fatigue, although addiction to or overuse of social media technology only serves to compact mental and physical illness and should be prescribed with caution (60,66). Computer-generated intelligence systems can bolster health care professionals' abilities only if elements of literacy such as competency, motive, and transparency can be maintained – running in direct parallel the ACRL Framework with integrated abilities, reflective discovery, and ethical participation (13,52).

Current findings link the timeliness criteria of information literacy, EBP's current body of evidence, and mental health literacy as practitioners' expertise advances in the health care field. Individual and organizational partnerships will continue to grow with clinical and hospital librarians who are attuned to the current literature on maintaining information literacy and EBP skill sets in the face of mental health crises – especially with mental health literacy opportunities and response to the COVID-19 pandemic in mind.

Conclusion

Librarians can be at the forefront of lifelong, EBP-based learning interventions through the avenue of mental health literacy instruction for health care professionals. Mental health literacy in the workplace encourages opportunities for coworkers to look out for one another, with at least as much attention paid to patients. The awareness of needing more information on mental illness, knowing where to find resources, accessing those avenues, and applying those interventions work hand-in-hand with traditional concepts of information literacy backed by EBP education and care.

Although technology can benefit mental health literacy interventions, a personal touch makes the most meaningful impact on long-term care, retention, and application of those literacy skill sets. Engaging with mental health interventions online or through mobile applications can be beneficial for some who are literate in those services; for others, yet another piece of technology could simply introduce a new barrier to care. With mental wellbeing in mind, librarians are in a specialized role to partner with health care professionals in providing EBP information literacy instruction and recommending compassionate mental health interventions for academic, clinical, and hospital settings.

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ORCID

Elizabeth B. Kavanaugh http://orcid.org/0000-0002-2677-6371

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