DALHOUSIE UNIVERSITY

The Division of Student Affairs

Literature Review

Interprofessional Collaborative Healthcare

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Executive Summary

Over the last decade, interprofessional collaborative healthcare (ICH) has been at the forefront of optimizing healthcare access, quality, and economic value. Operational indicators at Dalhousie University demonstrate a need to improve these three dimensions of healthcare in relation to both our Health Services and Counselling and Psychological Services. This review explores the emerging field of ICH through the lens of several primary care and mental health disciplines, with the purpose of understanding the components of existing models, their standards of practice, and what the implications of these models are (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2010). The investigation of this topic has provided rationale for integrating health and wellness services at Dalhousie University, and has contributed to several recommendations that will advise the pursuit of this initiative.

The findings of this review indicate that the most prevalent elements of successful ICH models, particularly between mental health and primary healthcare settings, have demonstrated:

- Mental healthcare practices being introduced to primary care practitioners and within primary care settings;
- Regular mentoring, consultation, and meetings between interprofessional teams;
- Electronic medical records that are shared between professionals;
- The inclusion of at least one Case Manager position;
- Stepped Care practices as a model for triaging patients based on individual needs.

The recommendations provided by this review have been distilled into four overarching themes: communication, consultation, coordination, and co-location. These serve as fundamental strategies for the successful implementation of any ICH model (Kates et al., 2011). Together, the strategies developed within each theme will foster stronger relationships between professionals, characterized by their shared knowledge, shared goals, and mutual trust and respect for each other's professional competencies and capabilities. Ultimately, by establishing an openness and willingness to collaborate, support each other, and ensure consistent practices, healthcare professionals will bolster accessibility to the services that students need.

Introduction

As universities and health institutions throughout the country face expectations to increase access for individuals to health and wellness services, they also face inevitable financial pressures which compromise service provision. Consistent with internal indicators at Dalhousie University, these trends have become especially prevalent with regard to mental health service provision, resulting in extensive wait times for students. Data reported from the 2016 National College Health Assessment (NCHA) survey indicates that from 2013 to 2016, students self-reported impact from depression and anxiety have increased at Dalhousie University beyond the Canadian Reference Group rate (ACHA, 2016). Both national and international efforts have focused on the research and development of strategies to optimize physical and mental health human resources in the most efficient and responsible manner. Interprofessional collaborative healthcare (ICH) has been an emerging enterprise for over two decades, stimulating changes in health and wellness practices and education. Although ICH models have focused on interprofessional approaches between a variety of disciplines and professions, much of the literature related to postsecondary institutions refers to integrated processes between primary and mental healthcare providers. In order to provide students at Dalhousie University with expedited and direct access to mental and physical healthcare, the purpose of this review is to examine an interprofessional collaborative framework for a newly envisioned Student Health and Wellness operational model. By providing definitions of the intended ICH approach, reviewing case studies and observed benefits of various models, this review aims to establish best practice recommendations for incorporating an interprofessional collaborative health and wellness model.

Background

In 2008, Health Canada funded the Canadian Interprofessional Health Collaborative (CIHC) with the purpose of developing a national competency framework for interprofessional collaboration. The CIHC framework represents the cornerstone of interprofessional health for many institutions, including the Dalhousie Centre for Collaborative Clinical Learning and Research CCCLR. As per the CIHC framework, interprofessional collaborative health is defined as, “A partnership between a team of health providers and a client in participatory, collaborative and coordinated approach to shared decision-making around health and social issues” (CIHC,

2010). The recent trend to integrate counselling and health services across various municipalities and institutions have common motivations, including streamlining access of services, emphasizing the quality of care, and providing holistic wellness (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2010).

Holistic wellness is premised with considering the health of an individual based on multiple and synergistic physical, mental, and social dimensions. Many bodies of research have made the case for holistic wellness as being linked to students and academic success (Gibbs & Larcus, 2015). An integrated approach to mental and physical healthcare is consistently seen as the first step towards holistic wellness for students. The significance of service integration and holistic health was emphasized in a 2013 report on the Dalhousie University Health Services Operational and Business Model. By understanding health as a series of integrated elements (Keeling Associates, 2013), the report draws on data that demonstrates health problems (including anxiety, depression, and sleep difficulties) occur more frequently and intensely for students than medical problems alone (Keeling Associates, 2013). The ecological perspective of the Keeling Report illustrates that health among students must not be confined to a one-dimensional definition. Moreover, the analysis identifies a linkage between the primary care practitioners within Dalhousie Health Services as significant contributors to students' academic learning outcomes, retention and overall success (Keeling Associates, 2013). Consequently, the strive towards ICH practices at Dalhousie University also provides an advancement of institutional strategic priorities.

In Canada, the case for collaboration between mental health and primary healthcare has been progressively studied and recommended in order to increase access to resources, enhance quality of care, and strengthen interprofessional working relationships. For example, the Shared Mental Healthcare working group between the Canadian Psychiatric Association (CPA) College of Family Physicians of Canada (CFPC) have published literature citing and recommending the evolution of mental healthcare as a collaborative field. According to their position, the implementation of collaborative models increased the capacity of primary care to manage mental health complications and also improved access to mental healthcare services (Kates et al., 2011). As this review will later reference, the working group also cited specific projects in Canada that have led to better clinical outcomes, more efficient use of resources, and an overall enhanced

experience for patients seeking and receiving care. These results have been echoed by findings in several case studies and systematic reviews that explored the extent of integration between mental health and primary care settings, which showed each integrated model of care offered the potential to improve access to treatment and improve quality (Butler et al., 2008). These findings have been emboldened by the increase in national, provincial, and local planning and networks of practitioners that are being established. The movement toward integrated collaborative mental healthcare has even been supported by the World Health Organization as a key method of improving access to "person-centered" mental healthcare (Butler et al., 2008).

Barriers

Prior to delving into the structures and implications of ICH, it is useful for the purpose of this review to first understand the potential barriers and reasons against the adoption of ICH, especially in the context of mental health and primary healthcare. In the 1990's, common literature recommendations provided that "… university counselling centers retain autonomy," citing various issues that included administrative challenges as well as a devaluation of mental health services as compared to medical health departments (Gillepse & Morgan, 1994). Over the past twenty years, the increase in reporting and recording of mental health issues within postsecondary institutions across North America has warranted the expansion of counselling and psychological service departments. In turn, growing bodies of research reported the positive impact of counselling services on the growing mental health needs of students (Sharkin, 2004). Given the reported external climate surrounding mental health practices and the positive impacts that were observed in university counselling centres, it is evident that these results provided sound reason for independent practice.

Recent studies have also called into question the efficacy of providing interprofessional collaborative mental healthcare for several reasons based on experimental findings. Principally, it is relevant to note that since mental illnesses have a wide range of variability in effect and treatment, patients with severe mental illness are unlikely to benefit from standard primary care settings (Butler et al., 2008). Furthermore, in the randomized control study of ICH models at various institutions, no evidence was found to support that outcomes of mental health patients improved as the extent of integration increased (Butler et al., 2008). In addition, although there was evidence that ICH led to improved care and outcomes for patients with depression or anxiety

compared to usual care, the results were not consistent. This therefore has led to the conclusion that ICH is not required to provide quality mental health services.

Currently, a common reluctance by clinical mental health practitioners to adopt an ICH model is due to the opinion that patient documentation for clinical health must be separate from that of physical health. This barrier is reported to be one of the most critical impediments to the implementation of any ICH model (Butler et al., 2008). In order to address this issue, the Nova Scotia Board of Examiners in Psychology (NSBEP) issued a special document in January 2017 regarding the 'Circle of Care'. Drawing reference to the Personal Health and Information Act and the Canadian Code of Ethics for Psychologists, the NSBEP states that, "In summary, psychologists who are attempting to facilitate the appropriate sharing of information with other psychologists and healthcare professionals, within the circle of care, are acting in a manner that is consistent with both professional standards and privacy legislation (Nova Scotia Board of Examiners in Psychology, 2017).

The topic of ICH also raises the considerations of professional identity for practitioners and how this plays a role in an overlapping healthcare system. Professional identity can be defined as the persona assumed by any person who holds expertise or specialized knowledge, and essentially concerns the role of the self and the self in relation to other individuals or organizations (Dadich et al., 2013). While professional identity is essential to all healthcare disciplines, it has been noted as one of the most examined and important subjects within the field of counselling (Burkholder, 2012). This has in part been due to the difficulties of clearly distinguishing tasks associated with specific counselling specializations and credentialing, resulting in a still elusive definition of a professional identity in counselling (Calley & Hawley, 2012). Similarly, primary care practitioners are finding their roles and responsibilities rapidly varying and evolving to best meet the needs of patients (Dadich et al., 2013). In an ICH system, struggles with professional identity can also become manifest by different providers attempting to protect the scope of their authority, autonomy, and accountability as it relates to patients or clients (Grant and Finnochio, 1995). Other risks due to an inability to articulate distinct professional identities among collaborators often results in: 1) confusion about the roles and responsibilities, 2) conflicts relating to power and status, and 3) the proliferation of professional stereotypes that jeopardizes the effectiveness of ICH (King & Ross, 2003, Waxman et al., 1999).

This synopsis of barriers to an ICH model is not exhaustive. However, it provides a useful understanding of the context in which challenges to an ICH model may arise, whether they be at the institutional or individual level. Considering the previous successes of independent counselling centers, the lack of evidence supporting enhanced quality of care, and the landscape of professional identity, this review will aim to mitigate these barriers by offering best practice recommendations as described in the literature. Nonetheless, this review highlights these three potential barriers as major factors to consider during the operational planning and implementation of future ICH models.

Observed Models

Since integrated approaches to collaborative healthcare have been conceived by various motivations, they have also taken a variety of approaches to building unique models and frameworks. Whereas organizations like the Council for the Advancement of Standards (CAS) have clearly outlined standards for university counselling services alone, the understanding of a formalized best practice for integrated services is still evolving and being evaluated. A study completed in 2010 by the American College Health Association (ACHA) surveyed 359 postsecondary institutions to further explore the presence and extent of integrated counselling and health services. Of the 92 institutions that reported integrated models, the two most prevalent structures included: 1) assistant directors for health and counselling that each reported to a centre director (34.9%) and 2) a counselling services director reporting to a health services director, who then reports to a senior administration member (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2010). However, while the Association for University and College Counseling Center Directors (AUCCCD) reported in 2015 that 27.9% (n=139) of surveyed counselling centres were administratively integrated with health services, they were mostly overseen by the Director of Counseling Services (33.5%), or an executive director (21.2%) (Reetz, Krylowicz, Bershad, Lawrence, & Mistler, 2015).

A thorough analysis on integrated mental health, substance abuse and primary care, prepared for the U.S. department of Health and Human Resources, encouraged similar structures by defining integration as having one of two directions: 1) mental healthcare introduced into primary care settings, or 2) primary healthcare introduced into mental health settings (Butler et al., 2008). Based on the methods employed to conduct these two studies, and the results that have

been found, institutions have shown a clear tendency to adopt the former direction of ICH. Based on the context of these two studies in conjunction with the independent literature research of this review, an attempt to explain this tendency can be made. Rationale to support the direction of introducing mental health services into the primary healthcare setting can be predicated on the five following findings:

i. People with mental health problems often do not receive treatment;
ii. People with mental health problems are just as likely to be seen by a primary care practitioner as by a professional in the mental health sector;
iii. Patients are much more likely to see a PCP at least once each year, compared to a mental health specialist;
iv. Many people with mental health problems have comorbid physical health problems, which mental health disorders may exacerbate. This in turn consumes higher levels of medical services and care-related costs;
v. Many assessments and treatments for common mental health problems, such as depression and anxiety, can be effectively delivered in a primary healthcare setting.

Having considered this common model for ICH practice, it is also valuable to note a more recent approach to the integration at postsecondary institutions that goes beyond the traditional counselling and health service models. The addition of Case Manager positions has been at the forefront of discussion for student health and wellness departments that have adopted ICH systems, or are in the early stages of doing so. According to a 2012 publication by the Education Advisory Board, Case Managers that have been typically employed by counselling centres or student wellness departments are licensed clinical social workers (Walden & Geraci, 2012). The roles that Case Managers take on vary from small clinical caseloads of high-risk students to triaging patients and facilitating communication as well as planning with inter-professional teams regarding several students that may require long-term care. As such, Case Management positions have also been separated in some cases to clinical Case Manager or administrative Case Manager, with some institutions employing both. Although the data of what impact Case Managers have on student health outcomes is sparse, it is typically benchmarked by student

intake, efficiency in referrals, and student responsiveness to follow up consultations (Walden & Geraci, 2012). Case Managers have also been used in collaboration with psychiatrist-led ICH models (Rundell, Unutzer, & Katon, n.d.), and have been considered to be an essential part of successful ICH programs (Kates et al., 2011). As this review will address, the support for Case Managers has been furthered by their observed role and impact within Stepped Care approaches to integration.

The strive towards ICH models has also been widely encouraged within the field of nursing with nurses increasingly taking roles in various shared care, case management, and interprofessional teams. In the context of ICH, registered nurses, advanced practice nurses, and nurse practitioners are involved in a variety of roles and have proven to be pivotal in advocative, facilitative, coordinative capacities (Canadian Health Services Research Foundation, 2012). For example, one Canadian interprofessional team model incorporated into the mental health setting included general practitioners, nurses, pharmacists, and psychotherapists. The nurses were coordinated to take on four specific roles: attending educational interventions, structuring assessments and various intervals, following up with patients for supportive care, and formulating treatment plans and drug counselling. The significant results observed included enhanced patient education and greater efficacy in treating depression by offering the patient more options in treatment modality (Craven & Bland, 2006). Nurses have also been involved in a subset of ICH known as shared care, where two different healthcare providers have joint responsibility for specific patient groups. While some distinctions arise between shared care and collaborative care, the co- management of patients has yielded significant evidence in improving quality of care and added value to patients. In Canada, several systematic reviews of nurses in shared care roles have especially contributed to decreasing wait times in primary care and mental healthcare settings, by acting as patient navigators (Psooy, Schreuer, Borgaonkar, Caines, & Judy, 2004) and assessing patient needs (Akeroyd, Oandasan, Alsaffer, Whitehead, & Lorelei, 2009).

Stepped Care

The concept of accessibility with respect to healthcare systems can be viewed as a multidimensional outcome, especially when considering the mechanisms involved to increase the capacity of patients. In the context of ICH, increasing capacity requires that relevant treatments

are available, used by the patients that need them, are received equitably, and are both effective and efficient (Scogin, Hanson, & Welsh, 2003). Accounting for these dimensions in a variety of mental and physical healthcare settings has been achieved through a process now commonly known as Stepped Care. Stepped Care can be described as dynamic procedure in which patients who do not respond to initial, low-intensity treatments are then referred on to more intensive treatments (Sobell & Sobell, 2000). This has proved to maximize the proportion of patients that may benefit from low-intensity treatments, in contrast to striated models that triage patients on the basis of their presenting symptoms (Richards et al., 2012). Although Stepped Care models may or may not include interprofessional collaboration, it is increasingly seen as a major component within evolving ICH models. This is reinforced by systematic reviews that suggest these collaborative care models surpass any other quality improvement method for managing depression based on both clinical outcomes and cost-reduction (Gilbody, Bower, Fletcher, Richards, & Sutton, 2006; Bower, Gilbody, Richards, Fletcher, & Sutton, 2006).

Stepped Care has been the officially recommended approach for depression and anxiety in the United Kingdom since 2004, and arguments for implementing this policy change in Canada have been based on improving access to treatments (Richards, 2012). As early as 2000, Sobell & Sobell suggested that properly implementing Stepped Care would lead to: individualizing treatments for patients resulting in increased compliance, conserving resources by only assigning patients on the care required, and treating wider ranges of symptom severity (Borsari et al., 2012). Reasons for shifting to Stepped Care models have also been supported by the bodies of research that show high levels of antidepressant prescription drugs for depression are commonly unrelated to symptom severity (Van Marwijk, Bijl, Ader, & De Haan, 2001). Furthermore, qualitative studies that have reported on implementation of Stepped Care for depression in primary healthcare settings have reported outcomes of better working relationships with colleagues and patients, great ability in recognizing depressed patients, and the ability to successfully offer low-intensity treatments to depressed patients (Franx, Oud, de Lange, Wensing, & Grol, 2012).

At university level, Stepped Care has also been offered beyond primary and mental health settings and used to address issues of alcohol abuse in students. In a randomized clinical trial conducted at Brown University, approximately 600 students were mandated to an alcohol

program following a campus-based infraction. In addition to the results of the study supporting the use of a Stepped Care approach, an important distinction was made early in the study regarding the heterogeneity of the population test group. Understanding heterogeneity of the mandated students immediately bolsters the premise of introducing a Stepped Care model, since the incorporation of multiple intervention methods offers increased potential for achieving desired outcomes. The findings of the study went on to demonstrate that since the majority of students were appraised as low risk drinkers, their behavior in a nine-month follow-up showed that: 1) students that have received the primary level of care showed better improvements than those who only received an assessment, and 2) the follow-up period indicated that the secondary, more intensive treatment would not have benefitted those same students (Borsari et al., 2012). Amongst the other findings related to alcohol abuse, this study also provided a strong confirmation of the efficacy of Stepped Care in resource management.

Challenges with Stepped Care, such as determining who is eligible for subsequent levels of care, have commonly been variable between different models and in different jurisdictions. Some propositions aimed at addressing these uncertainties have been provided by Dr. Peter Cornish (2016b) as "Stepped Care 2.0: A Framework for Atlantic Canada". In this model of Stepped Care, piloted at Memorial University, programs and treatments are delivered while promoting patient autonomy and empowerment, with subsequent care only being referred if their failure in the current level is anticipated by the care provider (Cornish, 2016b). Each increase in treatment intensity over nine treatment levels is described by an increase in resources required and decrease in patient autonomy, ranging from the initial consult to a tertiary referral such as a psychiatrist. Since the use of this Stepped Care model at Memorial University's Student Wellness and Counselling Centre between 2014 and 2015, results have illustrated a 10% decrease in hours spent with patients yet a 6% increase in patient satisfaction (Cornish, 2016b). In addition to these findings, Dr. Cornish has also proposed tasks and capacities that are useful for healthcare practitioners to provide considerable judgment in assessments, breadth of knowledge and capabilities, and appropriate solutions while also managing risk and developing therapeutic-relationships (Cornish, 2016a).

While best practice recommendations for Stepped Care models are still being developed, and tested, three components that remain consistent have included: 1) the ability to appropriately

differentiate between patients, 2) various levels and types of treatment, and 3) the process of monitoring patient outcomes (Franx et al., 2012). As described in this section, Stepped Care is commonly found as a component of ICH models. Its success in increasing patient compliance, conserving resources, and treating a wider range of symptom severity is reinforced by national policy shifts that have shown success in the UK and are being discussed in Canada. In addition to the success at Memorial University, the application of Stepped Care for treating alcohol abuse also speaks to the versatility of the framework in being able to best accommodate diverse patient groups. Having considered these elements of Stepped Care, it is a valuable component of ICH models.

Benefits and Impact

Research literature and studies on ICH models have observed empirical evidence that integrated systems are associated with increased access to services, enhanced quality of care, and overall reduced costs. In the ACHA survey of 359 institutions, references to previous literature cited that, "students with mental health concerns may feel more comfortable seeing a healthcare professional rather than a mental health professional" (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2012). In addition to avoiding the stigma that has long been associated with individuals having mental health issues, this has also been supported by the fact that many mental health concerns may initially present with physical symptoms. Furthermore, medical examinations are important to also rule out possible physical illnesses before devising treatment methods. Regarding certain mental health conditions, the literature review went on to suggest that the best care management has involved student health and counselling professionals working together since this results in better detection and early treatment (Alschuler, Hoodin, & Byrd, 2008). In the study conducted, the majority of institutions reported the following elements of treatment had "distinctly improved" or "improved" after integration: staff communication, quality of clinical services, quality of programs, comprehensiveness of services and programs, student satisfaction, utilization of services, and the ability to meet the needs of students (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2012).

A conjoint effort by The College of Family Physicians of Canada (CFPC) and The Royal College of Physicians and Surgeons of Canada (RCPSC) also reported similar findings, drawing

on the importance of collegial relationships in integrated mental healthcare. Citing the Shared Mental Healthcare project by the CFPC and the Canadian Psychiatric Association, continuity of care for patients was ensured by the timelier referrals of patients from the mental health specialist back to the primary care practitioner (CFPC & RCPSC, 2006). This element of collegiality adds to the body of literature that attempts to understand the boundaries of primary and specialty care clinicians as fluid, and thus changing based on the needs of the patients. As Forrest et al. (1999) suggests, this warrants the need to focus on recognizing and negotiating overlaps in care, opposed to simply defining borders. Further evaluation of the Shared Mental Healthcare project showed that, because PCPs were mentored and supported by specialty mental health clinicians, PCPs quickly learned more, gained confidence in assessments, and ultimately needed to refer patients less (CFPC & RCPSC, 2006). One important lesson that was learned from this program was that although ICH relationships develop slowly, these relationships have the potential to achieve many specific outcomes. As such, collegial relationships between mental and physical healthcare providers must be built on mutual trust, respect, knowledge of each other's expertise, skills, and responsibilities (CFPC & RCPSC, 2006).

The reliability of the impacts reported in this section have been supported by similar findings in countless publications of literature reviews and randomized control trials as well as quasi-experimental design studies. The study conducted by the Agency for Healthcare Research and Quality is especially useful for this review, as testing focused on depression, anxiety, and at risk alcohol use. While the overall results of the study indicate no discernable effect on integration level and processes of care, there has still been strong evidence that encourages integrated care especially for depression and anxiety (Butler et al., 2008). For example, observations also drew attention to people with anxiety and depression often first presenting to PCPs. Therefore, by integrating services, there is proactive approach to bring the care to where the patient is (Butler et al., 2008). Additionally, it was found that PCPs that were experienced in using evidence-based practice methods for depression care had outcomes equally as effective as mental health practitioners (Butler et al., 2008). Furthermore, observations on more complex patients that show high usage of medical health resources, such as somatizing patients, showed strong benefit from integrated care models (Butler et al., 2008). Overall, the benefit of having providers that represent a wide range of knowledge, skills, and perspectives has been

increasingly valuable in long-term care patients. When looking at what is most consistent in the literature regarding ICH outcomes, evidence that regular interprofessional communication is associated with improved patient outcomes prevails (Foy et al., 2010). This is emphasized by findings that define the promotion of interactive communication between health providers to offer an equal if not better return on investment than any clinical intervention (Foy et al., 2010, Kirsch et al., 2008, UK Prospective Diabetes Study Group, 1998; Turner, Matthews, Linardatos, Tell, & Rosenthal, 2008).

The implications highlighted here are particularly relevant to the context of Dalhousie University, as the main health concerns for the student population include anxiety, depression, and high-risk alcohol use. Most recent measurements of these health issues are a result of the American College Health Association's (ACHA) National College Health Assessment published in 2013 and 2016. Binge drinking - defined as five or more drinks in one sitting, one or more times in the last two weeks – shows a significantly greater prevalence at Dalhousie compared to the Canadian Reference Group (CRG), being 43.6% and 35.0% respectively (ACHA, 2016). In addition, depression and anxiety at Dalhousie increased in 2016 by 5.4% and 8.0% respectively, to total 20.1% an 33.4% of students being affected (ACHA, 2016). In relation to students' academic performance, anxiety ranks as the second greatest reason for negatively impacting performance while depression ranks as the fourth greatest reason (ACHA, 2016). Interestingly, these rankings are only preceded by stress and sleep difficulties respectively, which are well-known complications associated with both depression and anxiety.

On an institutional level, the prevalence of these health issues becomes exacerbated by the pressure of demand upon Dalhousie Counselling and Psychological Services (CPS). In 2016, Dalhousie University's CPS reported a 7% increase in requests for appointments with 1171 overflow calls representing an unmet student need (Counselling & Psychological Services, 2016). Interestingly, 7% of the total unique students seen by CPS only attended one brief initial consultation. Although it is unclear why those students did not proceed to schedule a follow up appointment, it may be speculated that those students did not require additional assistance at that time or were unable to find additional assistance in a timely manner due to a lengthy waitlist. The waitlist at Dalhousie CPS reported an average wait of 13 days and 28 days for students triaged as an urgent priority and moderate-to-low priority respectively. Ultimately, these internal

findings coupled with the progressive implications of collaborative primary and mental health services further provides environmental rationale and support for introducing an ICH system within the institution.

Financial Considerations

Although the financial considerations of ICH is not the focus of this review, a brief understanding of the case studies within this document is useful for future applications. The ACHA's query on budgeting for integrated health and counselling services found that 34% of institutions operated under one budget, with 33% reporting one budget being divided into individual budgets for different functional units (Considerations for Integration of Counseling and Health Services on College and University Campuses, 2012). The two most commonly referenced elements of financial considerations in integrated health systems include payment of services under fee-for-service arrangements and understanding short- versus long-term implications. Current models of remuneration that may not compensate physicians in collaborative services or activities is also seen as a barrier to integrating units (Kates et al., 2011). Both time and labour costs must be made financially feasible to cover direct and indirect patient costs. The overarching consensus between the literature reviewed is that short-term investments in adopting an ICH model will lead to long-term savings. Specifically, short-term implications on operational budgets may see increased expenditures in areas of providing new information technology (i.e. for electronic patient records), training, and hiring of new personnel (i.e. Case Manager) (Kates et al., 2011). However, consensus that investments into ICH will lead to long-term cost savings for institutions is heavily supported, especially in the case of patients with depression and other mental health disorders (Rundell, Unutzer, & Katon, n.d). Future research in the field of interprofessional collaborative health systems heavily recommend further emphasis on understanding the economics for different practices, models, and systems of integration.

Recommendations and Enablers

The extent of literature and resources covered in this review is by no means exhaustive of the multitude of disciplines that have focused research on interprofessional collaborative health. This document has attempted to focus on the integration of health and counselling

services at the university level and drawn upon Canadian and university-related organizations in order to maintain relevance to our purpose. Where no evidence has been found to support one particular model or method of integration, the following themes provide a synopsis and consolidation of the most common, effective, and relevant strategies observed.

Recommendations for Collaborative Models

Communication

Timely and effective communication between primary and mental healthcare providers has repeatedly been emphasized and has shown measurable outcomes in improving access and quality of care. The transfer of information about individual patients and available programs is essential to ensuring optimized care. Communication can be largely enabled by new information technology resources, especially for use in shared patient care records. Information Technology and shared patient-care records are key to reducing waiting times, informing care teams, providing 'real time' consultation, and dissemination practice guidelines between professionals. Communication can be further characterized by four dimensions; frequency, timeliness, accuracy, and problem-solving, which are all essential to providing consistent quality care.

Consultation

Consultations between care providers works in addition to effective communication by providing clear protocol, direction, and environments. For example, a model of consultation may require: 1) mental health professionals to provide guidance and follow up with primary care providers to support care of patients, or 2) primary care providers to advise mental health professionals on the management of medical conditions.

Coordination

Arranging both care and discharge plans in addition to clinical activities will help healthcare professionals guide students to appropriate resources, avoid duplication, and thus promote efficient use of resources. Care and discharge plans may also include educational programs that professionals deliver and receive together.

Co-location

Co-location of health and counselling services helps promote general access to care for students

that require support while reducing any potential stigma. While also allowing for healthcare professionals to work and interact in a mutual care setting, there will be an increased tendency to meet both physical and mental health needs of students.

Elements of Successful Programs

The position paper by the Canadian Psychiatric Association and the College of Family Physicians of Canada provides perhaps the most succinct overview of the distinct components that comprise effective and successful ICH programs (Kates et al., 2011), including:

1. At least one Case Manager.
2. Access to psychiatric consultation.
3. Enhanced patient education and/or streamlined access to other resources.
4. Sharing evidence-based treatment guidelines between healthcare professionals.
5. Screening patients with chronic medical illness for depression or anxiety.
6. Skill enhancement programs for primary care providers.
7. Access to brief psychological therapies, including motivational interviewing.

Next Steps

The ACHA (2016) task force on integration of counselling and health services recommends that a series of processes involving all relevant stakeholders take place for considerations in changes to service models. Stakeholders may include but not be limited to: administrators of the institution, administrative assistants, and direct care providers including physicians, counsellors, nurses, social workers, and any ancillary providers. This group should focus on:

1. Defining the goal(s) of integration.
2. Discussing and logistics implications of a potential integration.
3. Having input into the mechanism of integration, to facilitate future cooperation.
4. Answer questions, including but not limited to:
    a) To what extent will services be integrated?
    b) What changes will need to be made to administrative and clinical environment and personnel?
    c) How will consent for treatment and release of information be handled?
    d) What is the best investment in information technology, especially to support shared patient care records?
    e) Will there be joint or separate staff meetings and training?
    f) What will the new missions and goals be for the collaborative service?

g) Will the name of the centre change, and how will advertisement and promotion of services be handled?
h) How will finances be budgeted?

Conclusion

This review explores the recommendations by which interprofessional collaborative health and wellness models have contributed to increasing access, quality, and overall value in mental health and primary care settings. The extent of literature and programs studied indicates that interprofessional practices are increasingly popular and proliferating. While integrated models are encouraged and have shown empirical evidence in bolstering access and quality of care, neither private nor public health sectors have provided a comprehensive model as a blueprint for implementation or best practice recommendations. As such, this review has highlighted the common elements of successful interprofessional collaborative health and wellness centres to provide rationale for a new operational framework. Whereas this framework provides a confirmation of support for collaboration between Health Services and Counselling and Psychological Services at Dalhousie University, it also sets the stage for stakeholders to develop principles and guidelines for the implementation of an interprofessional collaborative healthcare model.

Reference

Akeroyd, J., Oandasan, I., Alsaffar, A., Whitehead, C., & Lorelei, L. (2009). Perceptions of the role of the registered nurse in an urban interprofessional academic family practice setting. Nursing Leadership, 22(2), 73-84.

Alschuler, K., Hoodin, F., & Byrd, M. (2008). The need for integrating behavioural care in a college center. Health Psychology, 27(3), 388-393.

American College Health Association [ACHA]. (2016). *National College Health Assessment II: Canadian Reference Group Executive Summary Spring 2016.* Hanover, MD: American College Health Association.

Barnes, D., & Dowdy, J.G. (2014). *Comprehensive student wellness centers at large public universities.* Washington, DC: Education Advisory Board. Retrieved from http://saa.gatech.edu/sites/default/files/documents/custom/comprehensive_student_wellne ss_centers_at_large_public_universities_1.pdf

Borsari, B., Hustad, J.T., Mastroleo, N.R., Tevyaw, T.O., Barnett, N.P., Kahler, C.W., … Monti, P.M. (2012). Addressing alcohol use and problems in mandated college students: A randomized clinical trial using stepped care. *Journal of Consulting and Clinical Psychology, 80*(6), 1062- 1074. doi: 10.1037/a0029902.

Bower, P., Gilbody, S., Richards, D.A., Fletcher, J., & Sutton, A. (2006). Collaborative care for depression in primary care. Making sense of a complex intervention: Systematic review and meta regression. *British journal of Psychiatry, 189*(6), 484-493.

Bulter, M., Kane, R.L., McAlpine, D., Kathol, R.G., Fu, S.S., Hagedorn, H., & Wilt, T.J. (2008). Integration of mental health/substance abuse and primary care. *Evidence Report/ Technology Assessment Journal, 173*, 1-362.

Burkholder, D. (2012). A model of professional identity expression for mental health counselors. *Journal of Mental Health Counseling.* 34(4), 295-307.

Calley, N. G., & Hawley, L. D. (2008). The professional identity of Counselor educators. *The Clinical Supervisor, 27,* 3-16.

Canadian Health Services Research Foundation. (2012). *Interprofessional collaborative teams.* Retrieved from http://www.cfhi-fcass.ca/Libraries/Commissioned_Research_Reports/Virani- Interprofessional-EN.sflb.ashx

Canadian Interprofessional Health Collaborative [CIHC]. (2010). *A national interprofessional competency framework.* Vancouver, BC: Her Majesty the Queen in Right of Canada. Retrieved from http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf

Considerations for Integration of Counseling and Health Services on College and University Campuses. (2010). *Journal of American College Health, 58*(6), 583-596. doi: 10.1080/07448481.2010.482436.

Cornish, P. (2016a). *Qualifications for CCC in Stepped Care* [PDF document].

Cornish, P. (2016b). *Stepped Care 2.0 for Atlantic Canada* [Prezi slides]. Retrieved from *https://prezi.com/yzr1tqpiozgi/stepped-care-20-for-atlantic- canada/?utm_campaign=share&utm_medium=copy*

Counseling & Psychological Services. (2016). *Annual Report 2016.*

Craven, M., & Bland, R. (2006). Better practices in collaborative mental health care: An analysis of the evidence base. *Canadian Journal of Psychology, 51*(1), 1-74.

Dadich, A., Jarret, C., Robards, F., Bennet, D. (2013). How professional identity shapes

youth healthcare. *Journal of Health Organization and Management.* 29(3), 317-342.

Forrest, C.B., Glade, G.B., Baker, A.E., Bocian, A.B., Kang, M., & Starfield, B. The pediatric primary- specialty care interface: How pediatricians refer children and adolescents to specialty care. *Archives of Pediatric and Adolescent Medicine Journal, 153*(7), 705-714.

Foy, R., Hempel, S., Rubenstein, L., Suttorp, M., Seelig, M., Shanman, R., & Shekelle, P.G. (2010). Meta-analysis: Effect of interactive communication between collaborating primary care physicians and specialists. Annals of Internal Medicine, 152(4), 247-258. doi: 10.7326/0003- 4819-152-4-201002160-00010.

Franx, G., Oud, M., de Lange, J., Wensing, M., & Grol, R. (2012). Implementing a stepped-care approach in primary care: Results of a qualitative study. *Implementation Science, 7*(8), 1-13.

Gibbs, T., & Larcus, J. (2015). Wellness coaching: Helping students thrive. *Journal of Student Affairs, 24,* 23-34.

Gilbody, S., Bower, P., Fletcher, J., Richards, D., & Sutton, A.J. (2006). Collaborative care for depression: A cumulative meta-analysis and review of longer-term outcomes. *Archives of Internal Medicine Journal, 166*(21), 2314-2321.

Gillespie, J., & Morgan, J. (1994). *Student funded university counseling centers: Operational challenges for year 2000.* Paper presented at the Annual Meeting of the American Psychological Association, Los Angeles, CA.

Kates, N., Mazowita, G., Lemire, F., Jayabarathan, A., Bland, R., Selby, P., … Audet, D. (2011). The evolution of collaborative mental health care in Canada: A shared vision for the future. *The Canadian Journal of Psychiatry, 56*(5), 1-10.

King, N., & Ross, A. (2003). Professional identities and inter- professional relations: Evaluation of collaborative community schemes. *Social Work in Health Care, 38,* 51-72.

Kirsch, I., Deacon, B.J., Huedo-Medina, T.B., Scoboria, A., Moore, T.J., & Johnson, B.T. (2008). Initial severity and antidepressants benefit: A meta-analysis of data submitted to the Food and Drug Administration. *PLoS Medicine, 5*(2), e45. doi: 10.1371/journal.pmed.0050045.

Nova Scotia Board of Examiners in Psychology. (2017). *Circle of Care.* Retrieved from http://www.nsbep.org/downloads/circle_of_care.pdf

Psooy, B., Schreuer, J., Borgaonkar, D., Caines, J., & Judy, S. (2004). Patient navigation: Improving the timeliness in the diagnosis of breast abnormalities. *Canadian Association of Radiologists Journal*, *55*(3), 145-150.

Reetz, D.R., Krylowicz, B., Bershad, C., Lawrence, J.M., & Mistler, B. (2015). *The Association for University and College Counseling Center Directors Annual Survey.* Retrieved from https://www.aucccd.org/assets/documents/aucccd%202015%20monograph%20-%20public%20version.pdf

Richards, D.A. (2012). Stepped care: A method to delivery increased access to psychological therapies.*Canadian Journal of Psychiatry, 57*(4), 210-215.

Richards, D.A., Bower, P., Pagel, C., Weaver, A., Utley, M., Cape, J., … Vasilakis, C. (2012). Delivering stepped care: An analysis of implementation in routine practice. *Implementation Science, 7*(3), 1- 11.

Rundell, J., Unutzer, J., & Katon, W. (n.d.). *Integrated behavioral health and primary care: Competencies and skills of psychosomatic medicine psychiatrists.*

Scogin, F.R., Hanson, A., Welsh, D. (2003). Self-administered treatment in stepped-care models of depression treatment. *Journal of Clinical Psychology, 59*, 341-349.

Sharkin, B. (2004). College counseling and student retention: Research findings and implications for counseling centers. *Journal of College Counseling, 7*(2), 99-108.

Sobell, M.B., Sobell, L.C. (2000). Stepped care as a heuristic approach to the treatment of alcohol problems. *Journal of Consulting and Clinical Psychology, 68,* 573-579.

The College of Family Physicians of Canada [CFPC] & The Royal College of Physicians and Surgeons of Canada [RCPSC]. (2006). *Family physicians and other specialists: Working and learning together.* Retrieved from https://www.cfpc.ca/uploadedFiles/Resources/Resource_Items/Conjoint20Discussion20Pa%20per.pdf

Turner, E.H., Matthews, A.M., Linardatos, E., Tell, R.A., & Rosenthal, R. (2008). Selective publication of antidepressant trailas and its influence on apparent efficacy. *The New England Journal of Medicine, 358,* 252-260.

UK Prospective Diabetes Study Group. (1998). Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes. *Lancet, 352,* 837-853.

Van Marwijk, H.W., Bijl, D., Ader, H.J., De Haan, M. (2001). Antidepressant prescription for depression in general practice in The Netherlands. *Pharm World & Science, 23,* 46-49.

Walden, M., & Geraci, L. (2012). *Implementation of case management positions in*

student counseling services. Washington, DC: Education Advisory Board.

Waxman, R. P., Weist, M. D., & Benson, D. M. (1999). Toward collaboration in the growing education-mental health interface. *Clinical Psychology Review, 19,* 239-253.