Mental Health Policy – Literature Support

Earlier this year, a paper was published in *Nature* entitled "Evidence for a Mental Health Crisis in Graduate Education" (Evans, Bira, Gastelum, Weiss, & Vanderford, 2018). The Evans et al. (2018) study surveyed 20,279 graduate students from multiple disciplines and countries, and found that graduate students were 6 times more likely to suffer from depression and anxiety compared to the general population. While there is greater awareness and more publicity surrounding mental health and its stigma, (e.g. Bell Let's Talk), especially in higher education ("Bell Let's Talk + - CSMH - Western University," n.d.), the literature suggests that students and graduate students are still struggling with mental health issues (Evans et al., 2018).

Much of the research into graduate student mental health is conducted within an institutional or departmental basis, such as the report from the University of Leiden in Belgium (Van, Meijer, Van, Beukman, Farzand, & De, 2017). In their sample of 250 graduate students across a variety of departments, 38.3% were at risk of serious mental health problems; nearly half (48%) of the students felt constantly under pressure, and an additional 32.8% reported losing sleep (Van et al., 2017). Another institutional report from the University of Berkeley which sampled 790 graduate students reported that 47% of PhD and 37% of Master's students were depressed (The Graduate Assembly, 2014).

Our review of some of the other literature investigating mental health among graduate students has uncovered similar results to the studies mentioned above. For example, in the United States, 17% of graduate students from a sample of 3,040 across multiple fields and institutions had been diagnosed or treated for mental health issues such as substance abuse, bipolar disorder, and/or obsessive-compulsive disorder in the past 12 months (Wyatt & Oswalt, 2013). In Ontario, a study sampling over 25,000 graduate and undergraduate students found that

61.4% felt hopeless in the last year, 46.1% felt overwhelming depression, and 64.4% felt overwhelming anxiety (American College Health Association, 2016). In the same sample, an alarming 13.7% of respondents had seriously considered suicide (American College Health Association, 2016). According to Garcia-Williams, Moffitt, and Kaslow (2014), one of the most disconcerting mental health problems associated with graduate students is suicidal behavior. Compared to undergraduates, graduate students may be at an elevated risk for suicide (Garcia-Williams, Moffitt, & Kaslow, 2014).

Many of the studies mentioned above have also analyzed the demographic variables associated with the reported mental health issues (Evans et al., 2018; The Graduate Assembly, 2014). For example, poor mental health is generally greater for racial minorities and members of the LGBT community, especially transgender students, compared to the general graduate student population (Evans et al., 2018; The Graduate Assembly, 2014). Based on the evidence presented above, there is still a significant number of graduate students experiencing mental health issues, which suggests that there may be a lack of appropriate treatment options, as well as barriers to accessing treatment for this particular population.

The following section highlights why universities should work to improve the mental health of graduate students. According to Wyatt and Oswalt (2013), poor mental health impacts the functioning of post-secondary campuses in a variety of ways, including academic performance, student health outcomes, as well as student retention and graduation rates. In particular, graduate students are extremely important for the proper functioning of a university, as many graduate students serve as teaching assistants (PSAC Local 610, 2018), research assistants, and instructors (Friedman, 2017). There is a great deal of evidence to suggest that people who are happier, less anxious, and less depressed are better workers, feel more motivated,

and are more productive (Gavin & Mason, 2004; Oswalt, Proto, & Sigoli, 2015; Zelenski, Murphy & Jenkins, 2008).

In our opinion, improving graduate student mental health may not only benefit the well-being of graduate students, but may also likely create a more efficient and effective workplace and university. We understand that improving graduate student mental health is a large and multifaceted issue to tackle. However, mental health issues such as anxiety, depression, and post-traumatic stress disorder (PTSD) can be addressed through a variety of effective clinical treatments such as cognitive behavioural therapy (CBT), dialectical behavioural therapy (DBT), and psychopharmacotherapy (Dozois, 2015). A general overview of the aforementioned treatment options will be discussed in the section below.

List of Evidence-Based Services the PSAC Mental Health Fund will Support

Psychological Treatments

According to Cohen and Votta-Bleeker (n.d.), psychological treatments are less expensive and generally as effective as pharmacotherapy for a number of mental health conditions such as anxiety and depression. However, when psychological treatments are used in conjunction with pharmacotherapy, patients report better treatment compliance, reduced subjective burden of disease, as well as lower suicide rates (Cohen & Votta-Bleeker, n.d.).

CBT. CBT focuses on how an individual can change his/her thoughts, beliefs, and attitudes that affect behaviour, with the goal of improving one's mental health (Butler, Chapman, Forman, & Beck, 2006). CBT is based on the belief that thought distortions and maladaptive behaviours play a role in the development and maintenance of psychological disorders (Gaudiano, 2013). As such, this form of therapy aids in identifying and practicing effective strategies to decrease symptoms of various mental health disorders, including anxiety,

depression, attention deficit hyperactivity disorder (ADHD), substance abuse, and eating disorders (Butler, Chapman, Forman, & Beck, 2006; Knouse & Safren, 2011; Murphy, Straebler, Cooper, & Fairburn, 2010; McHugh, Hearon, & Otto, 2011). As these disorders are commonly experienced by college and university students, CBT is often used to treat students (Regehr, Glancy, & Pitts, 2013).

CBT typically consists of short-term, one-on-one or group-based therapy sessions (Butler et al., 2006). During sessions, the counsellor aids the patient in identifying the problem, establishing attainable goals, and teaching the patient to implement strategies to promote positive behavioural change and growth (Butler et al., 2006).

Although frequently combined with medication or other forms of therapy, a large number of research studies have shown that CBT alone is effective in improving symptoms of mental health disorders (Butler et al., 2006). In particular, CBT has been shown to be effective in the management of anxiety and depression commonly seen in university and college students. For example, Zadeh and Lateef (2012) conducted a randomized control trial and found that 12 weeks of CBT improved depressive symptoms for female university students, compared to those who were not receiving treatment. Similarly, Anastopoulos and colleagues (2018) found that CBT decreased anxiety and depressive symptoms in college students, as well as improved executive functions and educational functioning. Other research has found that CBT not only improves symptoms of mental health disorders, but is also associated with improved overall quality of life (Zhang et al., 2016).

DBT. Although CBT is often thought of as the ‘gold standard’ in therapy, people may also benefit from a structured therapy with a mindfulness component (Leichsenring & Steinert, 2017). For those with problems processing emotions or extreme emotions, CBT is not advisable

in all cases. For example, students with anxiety (Gratz, Tull, & Wagner, 2005), borderline personality disorder (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004), binge eating disorder (Wiser & Telch, 1999), and depression (Harley, Sprich, Safren, Jacobo, & Fava, 2008) could benefit from dialectical behavioral therapy (DBT), which has a long duration and mindfulness component; DBT can require upwards of 20 sessions (Lieb et al., 2004), which is not currently offered in its full form on Western's campus.

According to the Centre for Addiction and Mental Health [CAMH] (2018), in DBT, patients are taught two seemingly conflicting strategies: acceptance (i.e., validating one's experiences) and change (i.e., making positive changes to manage emotions and move on). DBT is an evidence-based model of therapy, which helps patients acquire new strategies and skills to enhance their quality of life (CAMH, 2018). A standard DBT program requires a 12-month commitment (CAMH, 2018). However, there are shorter DBT programs, known as *DBT-informed programs*, which use some methods or structures of DBT that can also be very helpful for some people (CAMH, 2018).

Acceptance and commitment therapy. Our literature review revealed other evidence-based therapies that mental health professionals might employ to treat a graduate student. For example, acceptance and commitment therapy (ACT) has shown promising results; in its most extreme cases decreasing the rate of rehospitalization among previously hospitalized patients (Bach & Hayes, 2002). ACT differs from CBT in that instead of targeting a list of problematic behaviours, ACT teaches participants to change their approach to problematic thoughts that may lead to problematic behaviours (Twohig & Levin, 2017). For example, participants in ACT are encouraged to accept thoughts as mere thoughts while they continue their daily activities. In a study of 36 randomized control trials, ACT participants had a better outcome than those who

were placed on a waitlist or who underwent a “treatment as usual” approach; importantly ACT was found to be as effective as traditional CBT for anxiety and depression (Twohig & Levin, 2017).

Mindfulness-based stress reduction. Another treatment option for graduate students is mindfulness-based stress reduction, which encourages awareness and mindfulness (Grossman, Niemann, Schmidt, & Walach, 2004). This form of treatment takes 8-10 weeks to complete, often in a group setting, and in its full form contains multiple meetings per week (Grossman et al., 2004). Based on their meta-analysis, which included 20 studies, Grossman et al (2004) concluded that mindfulness-based stress reduction was effective in clinical populations.

Group therapy. Based on our review of the literature, we discovered that many mental health treatment options can also be offered in a group setting. For example, substance abuse treatment professionals use a variety of group treatment methods to meet client needs during recovery (U.S. Department of Health and Human Services, 2005). Group treatment options may include psychoeducational groups, skills development groups, cognitive-behavioural/ problem-solving groups, support groups, and interpersonal process groups (U.S. Department of Health and Human Services, 2005). The Canadian Mental Health Association also offers group therapy:

> Our DBT informed groups aim to teach individuals with a history of self-harm behaviours and certain types of emotional and behavioural difficulties, new skills to create a life worth living. DBT is a combination of cognitive behavioural approaches with Eastern meditation practices. Participants are taught skills in a group setting to help them create an improved quality of life (2018, DBT Groups).

CBT can also be offered in a group format (Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999), and mindfulness-based stress reduction includes a group component (Grossman et al., 2004). The evidence presented in the above section demonstrates the variety and effectiveness of group therapy treatment options. In addition to individualized psychological treatments, the PSAC Mental Health Fund will also support group therapy.

Psychopharmacotherapy

Psychopharmacotherapy is one of the cornerstones in the treatment of psychiatric disorders (Fritze, 2001). Psychotherapeutic drugs are powerful chemicals which produce significant effects on the mind, emotions, and body (Morrison-Valfre, 2009). Psychotherapeutic drugs act primarily on the body's nervous system by altering the delicate chemical balances within that system (Morrison-Valfre, 2009). Most psychotherapeutic drugs interrupt the chemical messenger pathways within the brain by suppressing major nerve pathways which connect the deeper brain to the limbic systems and frontal lobes (Morrison-Valfre, 2009). The frontal lobes are the source of higher human functioning, such as creativity, love, insight, judgment, planning, and abstract reasoning (Morrison-Valfre, 2009). The limbic system is responsible for motivation, emotions, memory, and the fight-or-flight response (Morrison-Valfre, 2009). As such, when the frontal lobes and limbic system is affected by psychotherapeutic drugs, significant changes in behaviour result (Morrison-Valfre, 2009).

As per the *Regulated Health Professions Act, 1991*, in Ontario medications are prescribed by registered healthcare professionals such as psychiatrists, pharmacists, general practitioners, and nurse practitioners (Ontario Ministry of Health and Long-Term Care, 2016; Canadian Nurses Association, 2018). Due to the greater expertise of healthcare professionals and the treatment of mental health, we defer to their judgement. As such, all medications prescribed by a healthcare professional for the treatment of mental health will be covered by the PSAC 610 Mental Health Fund.

There are four classes of psychotherapeutic drugs: antidepressants, anti-anxiety drugs, anti-manics (mood stabilizers), and antipsychotics (Morrison-Valfre, 2009). The four classes of

psychotherapeutic drugs for the treatment of mental health will be discussed in more details below.

Medicated Conditions

Anxiety and depression are the most common diagnoses affecting graduate students (Evans et al., 2018). Substance use issues are also a major category of treatment, with treatment varying by substance, severity of disorder, desired patient outcome (reduced consumption versus abstinence), other co-morbidities, and previous treatments (Agabio, Trogu, & Pani, 2018; *The American Psychiatric Association Practice Guideline for the Pharmacological Treatment of Patients With Alcohol Use Disorder*, 2018).

Antidepressants. Citalopram, a selective serotonin reuptake inhibitor (SSRI) has been shown to be effective for use in depression in a wide number of cases and has fewer side effects than other antidepressants, and consequently is recommended as a first-line option for the treatment of depression (Cipriani et al., 2012)). Citalopram is a racemic mixture, containing S- and R-enantiomers, where the S-enantiomer when isolated is also called escitalopram, and has similar effects, but requiring lower dosages as it is the active component (Lepola, Wade, & Andersen, 2004).

Fluoxetine, commonly known as Prozac, is another SSRI. While commonly prescribed, this has been found to be less effective than other antidepressants (Magni et al., 2013). There are some cases where it is the first prescribed antidepressant and may also be used when patients do not respond to a previous treatment (Hetrick, McKenzie, Cox, Simmons, & Merry, 2012). Sertraline, branded as Zoloft, is another SSRI that has been shown to be effective as an antidepressant and is well tolerated by patients (Magni et al., 2013).

Anti-anxiety. Each of the SSRIs mentioned above can also be used to treat one or more forms of an anxiety disorder (Williams et al., 2017). Other anxiety medications include benzodiazepines such as diazepam, otherwise known as Valium, and alprazolam, also known as Xanax. There does not seem to be a consensus on whether SSRIs or benzodiazepines are more effective for treating anxiety, but SSRIs have significantly fewer risks (Quagliato, Freire, & Nardi, 2018; Williams et al., 2017).

Anti-manics (mood stabilizers). Lithium, a mood stabilizer, is usually the first medication suggested for the treatment of bipolar disorder (American Psychiatric Association, 2002). Antidepressant medication helps clients cope with depression, but it has little effect during the manic stage of behaviour, which is where anti-manics fit into the treatment plan (Morrison-Valfre, 2009). Other medications can be used to control only one portion of bipolar disorder, an example being lamotrigine, which can be used to control depression in bipolar disorder, but not mania (Canadian Mental Health Association, 2018).

Antipsychotics. Antipsychotics (i.e., Serequel, Haldol), which are also known as major tranquilizers or neuroleptics have a significant effect on the brain and central nervous system (Morrison-Valfre, 2009). Antipsychotics are typically available in liquid, tablet, and injectable forms (Morrison-Valfre, 2009). Antipsychotics, are an integral part of the treatment plan for people living with schizophrenia or other psychotic illnesses (Schizophrenia Society of Ontario, 2013). Antipsychotics are used to treat symptoms such as hallucinations, disorganized thinking, as well as paranoia and delusions (Schizophrenia Society of Ontario, 2013).

We acknowledge that the above list is by no means all-encompassing and are aware that there are many pharmacological options for the treatment of mental health. Thus, our literature review has highlighted the importance of psychotherapeutic medication in the treatment of

mental health; therefore, the use of prescribed medications will be supported by the PSAC Mental Health Fund.

Conclusion

This literature review examined the issue of graduate student mental health and provided an overview of the many evidence-based treatment options that have been used to improve mental health. Based on our review of the literature, it is evident that graduate students are struggling with a variety of mental health issues, which indicates that there may be gaps in treatment services, as well as barriers (i.e., financial) to accessing appropriate treatment. Furthermore, based on our findings the PSAC Mental Health Fund will support individual and group therapies, and psychopharmacotherapy as treatment options. We believe that improving graduate student mental health at Western is crucial to the overall functioning of our university. Nevertheless, we advocate for more research to assess the particular mental health needs of graduate students at Western. Collecting data on the use of the PSAC Mental Health Fund may help illuminate the gaps and barriers of mental health treatment for graduate students at Western.

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