

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

Demonstration of Meeting the 2014 Council for the Accreditation of Counseling and
Related Educational Programs Core and the Student Affairs/College Counseling Specialty
Standards via Five Major Artifacts

A graduate project submitted in partial fulfillment of the requirements
for the degree of Master of Science in Counseling,
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Abstract

Demonstration of Meeting the 2014 Council for the Accreditation of Counseling and Related Educational Programs Core and the Student Affairs/College Counseling Specialty Standards via Five Major Artifacts

By

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Master of Science in Counseling, College Counseling and Student Services

The following five major artifacts have been developed to introduce innovative ideas to the field of college counseling and student services, based on the CACREP standards for student affairs and counseling. Below are the descriptions of each of the five major artifacts included in this graduate project proposal.

The first major artifact discusses how international student centers can work towards reducing acculturative stress and increasing psychological adjustment with their international student population. This can be achieved through using the Schwartz Values Inventory to identify their strengths and using the Strengths-based cognitive-behavior four-step model to design a way in which to use those strengths to the student's advantage throughout their time in college.

The second major artifact introduces the concept of biofeedback as a method that has shown many benefits for people with ADHD. The addition of Biofeedback services

for college students can increase their attention and lead to an increase in retention of these students. Discussed are the benefits of biofeedback therapy for individuals with ADHD based on current research. Additionally, it is recommended that college campuses acquire biofeedback machines and implement biofeedback methods in order to provide the benefits to college students.

The third major artifact discusses the potential of career counselors on college campuses using the Career Counseling Underserved Populations Model (CCUSP), in order to provide more inclusive career counseling and achieve feelings of mattering in all students who step foot into the college career center. Research on the implementation of this method, indicates that it will increase persistence in students.

The fourth major artifact highlights the importance of the use of technology in growing access to higher education for adult learners. The addition of online classes in particular has had a large impact on the enhanced accessibility of obtaining a post-secondary education. What has been concluded is that online learning environments that are learner-centered properly foster the unique needs of adult learners, and thus should be utilized in all online classes at universities.

The fifth and final major artifact discusses how student athletes are among the top of college students with the highest risk for substance abuse. This major artifact addresses the necessity of college campuses to implement preventative measures to positively affect student athlete's substance abuse. Based on past literature, it is recommended that college campuses implement a substance abuse awareness workshop in order to increase awareness of and knowledge on substance abuse and decrease the behavior of abusing substances.

Cultural Strengths Training for International Students

As the population of international students on college campuses in the United States (U.S.) is increasing, student affairs professionals need to consider how to best assist them in their transitions into American college life. When international students' needs are left unmet by universities, these students feel disappointed, unfulfilled, and exploited (Sherry, Thomas & Chui, 2010). People all over the world choose to attend college in the U.S. for the multitude of educational opportunities available that are typically not offered in their home countries. Although attending college abroad can provide beneficial educational opportunities and have a positive impact on international students, much research has shown that international students also face many challenges with attending college internationally. Some examples of such challenges are language and cultural barriers, financial hardships, isolation, and homesickness being among the top challenges (Sherry, Thomas & Chui, 2010; Tas, 2013).

Due to the mentioned challenges faced by international students, many of these students endure acculturative stress during their college experience, which pushes them beyond their psychological limits. Acquiring ways in which to identify cultural strengths and how to use them to reduce international students' acculturative stress and enhance psychological adjustment in the US is an important skill for international students to be taught upon entering college. The primary responsibility of this skill set acquisition is placed on international student centers at colleges, as they are the first and sometimes only mode of contact for international students when they first arrive from their native country. In a study by Sherry, Thomas and Chui (2010), it was unanimously found that international students highly value "the receptiveness of the University community to

international students” (p. 37), which further emphasizes the vital role of student affairs professionals working in the international office or anywhere on campus, as well as the university at large.

International Students

There is an increase in the number of international students attending colleges in America, making them a population of interest for colleges and universities. In the 2012-2013 academic year, there were a total of 819, 644 international students attending colleges in the United States, which is a 7% increase from the previous year (Institute of International Education, 2014). According to a report by the Institute of International Education (2014), international students make up approximately 4% of the entire higher education population and come from such countries as China (29%), India (12%), South Korea (9%), Saudi Arabia (5%), Taiwan (3%), Canada (3%), Japan (2%), Mexico (2%), Vietnam (2%), Turkey (1%), and other places of origin (32%).

Despite the high volume of international students, there are still not a great deal of efforts being made toward easing their transition into American college life. In one study, international students reported experiencing difficulties adjusting to cultural norms when they first came to America to study, and over 60% of respondents in this study also shared that they did not feel that their culture was widely or thoroughly understood (Sherry, Thomas & Chui, 2009). Student affairs professionals working in international student centers can work towards eliminating these feelings through first understanding the student’s cultural values and corresponding strengths. It is believed that cultural values are directly related to the perceived quality of one’s life (Urzúa, Miranda-Castillo, Caqueo-Urizar & Mascayano, 2013), so beginning with this can be effective.

It is not uncommon for international students to feel lonely within the new college environment, which lacks their social support of friends, family, and cultural values (Sherry, Thomas & Chui, 2010). Past research has indicated that values are essential to understanding cultures and societies (Tóth & Simányi, 2006), and is reflected in many values theories. Functionalist theory is an example of a values theory with a main focus on a person's society and culture as a predictor for the values that they will hold themselves. It is believed that values are learned and passed down for generations, making them a part of one's own identity and familiarity in life. Due to the long history associated with values being passed down within families and cultures, changing values can be a very long, gradual, and difficult process which often causes acculturative stress.

Acculturative Stress

Acculturation occurs when people come into contact with one another on a regular basis that come from various cultural backgrounds (Khusboo, 2013). Acculturative stress is the disoriented feelings that is often associated with these cross-cultural transitions (Yakunina, Weigold, Weigold, Hercegovac & Elsayed, 2013), and has been found to be more difficult for anyone who moves internationally after the age of twelve (Mena, Padilla & Maldonado, 1987), making international college students at particular risk of high levels of acculturative stress. Some common symptoms of acculturative stress include sadness, home sicknesses, social withdrawal, and cultural identity confusion (Yakunina et al., 2013). As a result of acculturation, aspects about either or both cultural groups may change, while maintaining distinct individuality of the cultures (Khusboo, 2013). For people who come to a new country and experience

acculturation, processing their role within the new environment is the most challenging stage of the acculturation process (Mena, Padilla & Maldonado, 1987).

Berry (2005) discussed the importance of people undergoing acculturation to integrate with the host culture, which means to not give up their own culture and merge with the host culture or to completely reject the host culture, but to allow their culture to integrate with their understanding and acceptance of the new one. However, Berry (2005) notes that this is a mutual process where the individual volunteers to integrate and the society is open to cultural diversity. As long as universities do their part in welcoming the diversity that international students bring, this method can allow for international students to gain a competence in their understanding of the culture they are exposed to, while staying true to their own cultural background. Additionally, it is believed that experiencing a stressful life event such as acculturation can bring about positive change, for instance an enhancement in the understanding of one's own culture as well as the host culture (Kim & Kim, 2013). Through evaluating cultural values and corresponding strengths and through teaching international students how to utilize them to their benefit during their stay in a new country, this can be accomplished.

International Student Psychological Adjustment

With the high rates of acculturative stress among international students, come high rates of psychological distress (Kim & Kim, 2013). In a study by Wilton and Constantine (2003), it was found that students from different cultural backgrounds all experience some level of psychological distress due to acculturation. All of the stress that international students are experiencing during their transition to not only college, but to a college in a country that is not their native country, increases the likelihood of negative

feelings of isolation and marginality. A factor that works against proper adjustment into college for international students is when their needs are not properly met, which occurs because of cultural differences between them and domestic students (Tas, 2013).

International students have different outlooks in life, have different priorities and have different traditions than their domestic peers, which creates cultural barriers between them and their peers.

In a study by Wilton and Constantine (2003), it was concluded that universities could help international student's cultural adjustment through making an effort to "validate and support these students' native cultures and encourage bicultural competence" (p. 183). It is also important for students to know and understand their own cultural strengths and weaknesses in order to be able to call upon those cultural values and strengths in time of need (Tas, 2013). Culture is known to influence all areas of human behavior, which makes it very probable that a person's culture will influence their decision-making and problem-solving behaviors (Lee, 2003). This makes it critical for international students to understand their cultural influences and the impact they have on them, and for international counselors to be aware of them so they have a clear understanding of what is motivating the student's behaviors.

Literature Review

In an article on international students and their individual strengths, the goal was to "use their personal and multicultural strengths to reduce their acculturative stress and obtain optimal adjustment" (Yakunina, Weigold, Weigold, Hercegovac & Elsayed, 2013, p. 218). There were 336 international students in this study, with 58% graduate students, 37% undergraduate, 3% postdoctoral, and 2% who were not working towards a degree

(Yakunina et al., 2013). Those who participated in the study had lived in the US between 1 and 120 months. Participants ranged from eighteen to forty-six years old, with approximately half being men and half being women. Participants came from Asia, South and Central America, Europe, the Middle East, Africa, North America, the Caribbean, and Australia and Oceania. Data was collected electronically from twenty of the top colleges and universities who enroll the largest numbers of international students within the US.

In this study, three strength-based domains were measured as predictors of international students' levels of stress and adjustment: personal growth initiative, hardiness, and universal-diverse orientation (Yakunina et al., 2013). Personal growth initiative refers to the motivation of someone to better themselves in multiple areas of their life, for example, to develop a talent or interest they possess. High levels of hardiness in the study imply that the person is resilient and able to cope with challenges smoothly and thus may have better psychological adjustment than someone who does not score high in this domain (Yakunina et al., 2013). The universal-diverse orientation in the study refers to a person's appreciation and acceptance of backgrounds that differ from one's own (Yakunina et al., 2013). It was found that people who score high in this domain are more likely to have a greater number of cross cultural friendships than those who score lower within this domain (Yakunina et al., 2013). The higher students were to score on any of the three domains, the better their adjustment in the US would be.

Students in the study took the 36-item Acculturative Stress Scale for International Students to rate their acculturative stress and the 10-item Schwartz Outcome Scale to measure their psychological adjustment. As was expected, the results showed that the

personal and multicultural strengths listed above did lower acculturative stress and increased psychological adjustment either directly or indirectly (Yakunina et al., 2013). The personal growth initiative directly impacted positive adjustment, which indirectly had a positive effect on acculturative stress, meaning that the students who were dedicated to their own personal growth have an easier time adjusting so they are not affected by acculturative stress as much. Hardiness had a direct positive impact on acculturative stress and adjustment, because it was found that students who ranked high with hardiness are able to cope more effectively with stressors. The students who ranked high in the universal-diverse orientation are the ones that were open to diversity and thus welcomed the new culture; this led to a highly positive impact on acculturative stress, which led to an increase in adjustment.

Based on their findings, Yakunina et al. (2013) concluded that “international students can use their personal and multicultural strengths to reduce their acculturative stress and attain optimal adjustment” (p. 217-218). The authors urge professionals to assist students in uncovering their personal and cultural strengths and discover how they can be used to improve cross-cultural adjustment. Additionally, Yakunina et al. (2013) state that international students could be swayed into viewing the experience of studying abroad as an opportunity to develop or expand cultural understanding and establish professional skills that can be used globally. Lastly, Yakunina et al. (2013) recommend that “international students...maintain an attitude of multicultural openness, which would allow for them to experience fewer cultural conflicts or to resolve such conflicts in positive ways” (p. 221).

Schwartz Cultural Values Inventory

Schwartz (2006) views cultural values as a reflection of goals that a culture wants to achieve, and thus pass the values down to future generations in order to continue the growth of the cultural objective. Schwartz (1992; 2005) designed a cultural values questionnaire instrument with 56 items to be measured. Based on his findings from over 70 countries, Schwartz (1992; 2005) designed a values system that is comprised of 10 different values, divided into three groups: individualistic (achievement, hedonism, power, self-direction and stimulation), collectivistic (benevolence, conformity and tradition), or mixed (security and universalism). Each value identified has a specific meaning: achievement translates to personal success; benevolence means to do no harm; conformity is about being polite; hedonism is focused on pleasure; power relates to wealth; security denotes law and order; self-direction is about freedom; stimulations focus is on excitement and novelty; tradition explains religious devotion; and universalism is about equality for all (Schwartz & Rubel, 2006). The Schwartz Values inventory can be used with international students to help them highlight their cultural strengths, which will be explained in further detail below.

Strengths-Based Cognitive-Behavior Therapy

Strengths-based cognitive-behavior therapy is a style of positive psychology that is designed to assist clients in finding positive qualities about themselves. Within the positive psychology framework is the idea that everyone has their own set of strengths that can contribute to positive outcomes in one's life (Kim & Kim, 2013). Padesky and Mooney (2012) formulated a four-step strengths-based cognitive-behavioral model to help build resilience through focusing on the positive qualities that an individual

possesses. By discovering and acknowledging individual qualities and strengths, resilience tends to be innately formed within a person. As Padesky and Mooney (2012) state, “resilience helps people face and manage positive and negative life events” (p. 283), such as the positive event of being admitted to a college of choice in the US or the negative event of experiencing acculturative stress by moving to a college in the US. The four steps to resilience are to search for strengths, construct a personal model of resilience (PMR), apply the PMR to challenges in life, and practice resilience (Padesky and Mooney, 2012).

Padesky and Mooney (2012) choose to work with individual strengths rather than weaknesses because they believe that people naturally see their weaknesses, leading to maladaptive behaviors and beliefs with those weaknesses; whereas strengths are typically untouched by cognitive distortions and more likely to be adaptable. This approach enables people to break a cycle of inactivity through avoidance or negative thoughts about capabilities, and instead encourages embracing challenges in life. This approach also decreases the amount of negative experiences that a person experiences, which inadvertently increases quality of life. Padesky and Mooney (2012) also state that “this same four-step approach can be used to build other positive qualities” (p. 19), such as to reduce acculturative stress and increase psychological adjustment within a new environment, making it an ideal model for highlighting cultural strengths in international students.

Stage 1: Search for Strengths

In the first stage of this model, participants are asked to identify any strengths they possess, including strategies, beliefs and personal assets. This can be accomplished

through acknowledging what they already do in their daily lives. Students could choose their own strengths that they find within themselves for this process. For international students, emphasis would be placed on their strengths based on their cultural and societal values. Results from the Schwartz Value Inventory could be utilized to highlight culturally based values that a student believes to be a strength for them. It would be important for counselors to be open to the idea that some students from various collectivistic cultural backgrounds may be uncomfortable choosing their own strengths that they find within themselves, as they may not view any of their characteristics as strengths, but rather norms or what is expected. Providing these students with the Schwartz inventory could alleviate some stress that may be felt in talking about themselves or their culture.

Stage 2: Build a Personal Model of Resilience (PMR)

The second stage of this model is to build a personal model of resilience (PMR) and determine what that would look like for the individual. In their model, Padesky and Mooney (2012) explain that using metaphors as often as possible can help the client remember the PMR, however, it is important to note that some international students may have a difficult time with this, as some cultures do not use metaphors the way Americans do. Counselors do not want to confuse or offend international students with misunderstandings. A way to work with international students on this is to ask them if there is a mental representation, a word or phrase, a place, or an object that they could give to each characteristic to make it more memorable for them. This way they can choose something significant to them or something that makes sense according to their way of thinking.

Stage 3: Apply the PMR to Challenges in Life

During the third stage of this model, the individual is asked to think about issues that may arise and thus would require the individual to apply the PMR. This is where a counselor could discuss common issues that arise for international students, and open up the discussion on what that student would do within the context of that situation with their strengths in mind. An example of a common issue among international students is to experience the effects of a language barrier. A counselor could bring this situation up and allow the student to critically think about which of their strengths could help them through that situation with ease. This is where the student could experiment with new possibilities of actions and reactions to novel situations they may encounter in college with their strengths in mind. In the case of a language barrier issue, the student may possess the achievement value from the Schwartz inventory and thus be determined to work hard to learn the language of the natives.

Stage 4: Practice Resilience

In the fourth stage of this model, the identified strengths are used in practice through experiments devised by the client and counselor. These would be controlled exposures to issues discussed between the counselor and the international student. A counselor could do role-playing with the student or send the student out on a mission to be exposed to a situation that would call into play their PMR. To test a student's reaction to stress over language barriers, the student may be assigned to approach a sales clerk and ask if they can break a \$20. They do not have to say much in this exercise, but there is good exposure to what could be awkward silence or hand gestures to work at communicating and solving the problem at hand. After such experiments, it would be

critical for the counselor to be able to debrief with the student to review what worked and what needs more work. Eventually, the student will feel confident in their values and their problem-solving capabilities and will experience lower levels of acculturative stress and thus higher levels of psychological adjustment.

Discussion

Every person has their own set of cultural strengths that, when properly utilized, can work towards stabilizing whatever that person is going through in life. One such transition that may call upon the individual strengths of a person is moving to a foreign country, leaving friends and family behind, in order to pursue higher education. It is important to consider the cultural strengths of international students in helping them to build resilience and ultimately reduce acculturative stress and increase psychological adjustment. Highlighting positive characteristics, such as cultural strengths, can work towards enabling students to formulate their very own set of coping mechanisms to use at their disposal.

Implications

Student affairs professionals working in international student offices can use the Schwartz Values Inventory, or an informal method of discovering cultural strengths (i.e. asking international students what they think their strengths are), to help international students reach a point of acceptance in themselves and with their cultural heritage and to show international students how to use those strengths to help them navigate their transition into and through college. International student centers may wish to consider doing this with their students as soon as they arrive in the US, so that they start off on the right foot, with their strengths in mind. It would be important for them to have their

strengths highlighted as early as possible, because they are bombarded with a very different culture from the moment they enter the new country and could use an action plan on how to get through all the change.

Limitations

When working with international students, it is critical that their cultural values be recognized and understood prior to evaluating cultural strengths. Mentioned above are ways to be mindful of cultural differences during this process, but it is by no means an exhaustive list of ways to do so. It is also important to remember that although two international students may come from the same country, it does not automatically mean that they have the same cultural values. It is important not to make assumptions, and instead to take care to view each student as an individual. It is important to note also that one factor that works in international students' favor is that longer periods of time spent in the US typically results in lowered levels of psychological distress equally among all racial groups (Wilton & Constantine, 2003). This can be used to help reassure international students who are particularly struggling with acculturative stress.

Conclusion

This paper has discussed the ways in which international student centers can work towards decreasing acculturative stress and increasing psychological adjustment with their international student population through using the Schwartz Values Inventory to identify cultural strengths and using the strengths-based cognitive-behavior four-step model to discover how those strengths can be used to benefit the student during their transition into college life in the US.

Biofeedback Treatment for College Students with ADHD

People with disabilities have only recently been given the rights they deserve by legal means. The addition of such legal interventions as the 1990 Americans with Disabilities Act (ADA) has opened up the national conversation about rights for persons with disabilities. Within the ADA (1990), the rights of people with disabilities and the responsibilities of employers and schools to ensure that their rights are protected and their needs are met are clearly defined. Furthermore, the 2004 Individuals with Disabilities Education Act (IDEA) highlights the obligation of schools to meet students' needs when it comes to acquiring an education in the public school system through means of early intervention and specialized education for individuals with disabilities. Although the ADA and IDEA provide a legal backing for individuals with disabilities employers and educational establishments, they do not always follow them by doing their part to ensure equal access and opportunities for people with disabilities.

The addition of the ADA and IDEA legislation in favor of people with disabilities has created the opportunity for many people with various disabilities to attend college. Students are provided with Individual Education Plans (IEPs) while they are in the K-12 system, which helps them eventually graduate from high school, increasing their chances of being accepted to colleges. University students today come to higher education with a wide range of disabilities, with Attention-Deficit/Hyperactivity Disorder (ADHD) being among the most common neurodevelopmental disorders worldwide (Frank-Briggs, 2011). Since there is a growing population of students with ADHD universities should consider the addition of free or low-cost resources for students, such as biofeedback in order to help these students succeed in college.

What is ADHD?

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurobehavioral developmental condition that is typically diagnosed in childhood, although it is a lifespan condition that can affect a person at any age. ADHD has two components: inattention and hyperactivity-impulsivity. According to the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (2000) inattention includes such characteristics as making careless mistakes, being easily distracted, appearing as though not listening when spoken to, losing things needed to complete an activity, and difficulty staying on task. Hyperactivity-impulsivity, on the other hand, includes characteristics like the inability to stay seated when needed, consistent fidgeting, constant climbing on objects and excessive talking (DSM-IV, 2000). Someone can be diagnosed with ADHD with an emphasis on either inattention or hyperactivity-impulsivity through meeting six or more symptoms from the criteria for only one category, or have a combination of the two main characteristics of ADHD.

ADHD is one of the most common neurobiological conditions that affects children, and is thought to be inherited (National Resource Center on ADHD, 2008). According to the Centers for Disease Control and Prevention (CDC) (2014), about 11% of 4-17 year olds were diagnosed with ADHD by 2011 in the United States and approximately half of those with ADHD do not graduate from high school. Additionally, approximately 60% of people diagnosed with ADHD as children continue to have symptoms into adulthood (webMD.com, 2013). This means that there is approximately 4% of the American adult population that has been diagnosed with ADHD, with possibly more who are undiagnosed. Furthermore, approximately two-thirds of people with

ADHD are also diagnosed with another disorder, with the most common comorbid disorders being Oppositional Defiant Disorder (ODD) at 35% and Conduct Disorder at 26% of this population (Frank-Briggs, 2011). ADHD is also found equally throughout all ethnic groups and socioeconomic statuses, which means that anyone can be affected by this disorder (Frank-Briggs, 2011).

In children, ADHD can prevent students from succeeding in grades K-12 by inhibiting them from being able to focus in the classroom (DuPaul, Janusis, & Weyandt, 2011; O'Regan, 2010), where they are expected to listen to a teacher speak for several hours every day of the week. For children with ADHD, sitting still and engaging in quiet activities can be perceived as boring and preventing them from engaging in more interesting endeavors. Their inability to stay focused on tasks puts them at a disadvantage in the school setting, and may keep them from moving forward academically with their peers (Felt, Biermann, Christner, Kochhar, & Harrison, 2014). For adults living with ADHD, they may find it challenging to concentrate, organize information, finish tasks on time, follow directions, or remember information (webMD.com, 2013). The severity of the symptoms will vary depending on the person, with some people unable to participate in daily activities without being affected, and others being able to function in their everyday lives.

When children with ADHD graduate high school and enter into college, they may or may not have gotten the personalized assistance they needed to succeed academically up to that point (webMD.com, 2013). Often, people with ADHD will go untreated throughout their childhoods and may seek assistance in their adult years (webMD.com, 2013). This could occur with college students who may have had a mild

form of ADHD in their childhood and were able to navigate their lives uninterrupted, but may struggle in the new, more challenging college environment. It remains however, that many adults with ADHD are not diagnosed (webMD.com, 2013), and are not aware that they may have a developmental disorder preventing them from their full potential. There is no cure for ADHD, but there are medications and other interventions that can help manage the symptoms of the disorder (DuPaul et al., 2011).

Although there is no cure for ADHD, with the proper intervention or treatment, symptoms can be managed (DuPaul et al., 2011). There are many evidence-based treatment options for ADHD, such as medications and behavioral therapy; however these treatments are not always helpful in successfully treating symptoms of ADHD (Lofthouse, 2011). Biofeedback therapy is one alternative method of treatment for ADHD that has been researched and proven to be effective in the management of symptoms of ADHD (Bakhshayesh, Hänsch, Wyszkon, Rezai, & Esser, 2011; Horowitz, 2006; Hutchinson, 2014; Lofthouse, 2011; Monastra, Lynn, Linden, Lubar, Gruzelier & LaVaque, 2005; Monastra, Monastra & George, 2002; Schmidt & Henrich, 2012). Students living with ADHD struggle with succeeding in school (Schmidt & Henrich, 2012), so when symptoms of inattention or hyperactivity-impulsivity lessen, they are likely to be able to attend classes, pay attention, do their assignments and turn them in on time, perform better in school, and ultimately graduate. It is for these reasons that providing Biofeedback as a free or low-cost service for students on college campuses living with ADHD is so crucial.

What is Biofeedback?

Biofeedback is a neurological treatment that is based on concepts from Cognitive Behavior Therapy (CBT), which operates on the premise that some behaviors can be modified through thinking logically about those behaviors, and is used to treat several different ailments that people face today. CBT is a goal oriented style of therapy that focuses on the cognitions of a person in order to alter a behavior. By bringing attention to the behavior in question, action can be taken to change it for the better. With CBT, the therapist and the client work together to identify negative behaviors and thought patterns that stand in the way of the end goal of the client. Biofeedback interventions fall under the scope of CBT, as it requires a certain level of awareness of one's behaviors and cognitions, and the process works towards replacing old maladaptive behaviors and thoughts with newer, more positive ones.

Biofeedback is an alternative intervention to pharmacological treatments that can be used to treat a number of illnesses such as anxiety, hypertension, eating disorders, autism, insomnia, chronic pain and ADHD (Horowitz, 2006). According to the Association of Applied Psychophysiology and Biofeedback website homepage (2011), “Biofeedback is a process that enables an individual to learn how to change physiological activity for the purposes of improving health and performance.” Based on literature available on biofeedback, sessions can range from \$50-\$200 per session (Lofthouse et al., 2011), or biofeedback equipment can be purchased for anywhere from \$20-\$2000 (Health.CostHelper.com, 2014), with the higher priced equipment being more complex and having far more options than the lower priced items. Biofeedback sessions are typically between 30 and 60 minutes. Additionally there are three different types of

biofeedback therapy available; electromyography (EMG), thermal, and electroencephalography (EEG), which is also known as Neurofeedback. EMG therapy is used to measure muscle tension, while thermal therapy measures temperature of the skin, and EEG measures brain waves. These are each different ways of measuring what the body's reaction is to stressful situations on the body.

The process of biofeedback begins with a complex process of monitoring one of the above mentioned measurements of muscle tension, skin temperature, or brain waves. The person engaging in the biofeedback therapy is attached to, for example, an EEG machine, and has electrodes attached to the head to translate the electrical information of the brain into something like a light or a sound. The light or sound is triggered by the detection of brain waves on the EEG that contradict the desired function of the individual. In the case of someone with ADHD, the machine would be triggered by brain activity that indicates that the person is experiencing an inability to stay focused. The person hooked up to the machine is told to extinguish the light or sound, and does so by experimenting with various visualizations, changes in thought processes, relaxations techniques, or anything else that may work for the individual. As the patient extinguishes the light or sound, that person begins to reflect on what they did to control that measurement, and establishes the ability to use it again at a later time.

According to Horowitz (2006), "biofeedback is a therapeutic technology that empowers patients to be active participants in their own health care by providing them with immediate insight into the functioning of their bodies" (p. 279). Biofeedback uses principles of operant conditioning, self-regulation, and relaxation, which can all be adjusted to be safe for children or adults of any age. Although every type of biofeedback

therapy can be utilized in treating individuals with ADHD, research indicates that neurofeedback is the most often used form of biofeedback for individuals with ADHD (Hodgson, Hutchinson, Denson, 2012; Horowitz, 2006; Lofthouse, McBurnett, Arnold, Hurt 2011; Nazari, Querne, Broca & Berquin, 2011; & Moriyama et al., 2012). Neurofeedback is specifically used to enhance attention and to treat cognitive and behavioral disorders such as ADHD (Horowitz, 2006). During neurofeedback, “the individual is trained to control particular brainwave patterns using EEG technology, increasing beta activity while decreasing theta activity,” (Hodgson, Hutchinson & Denson, 2012, p. 276) which assists in enhancing attention capabilities.

Biofeedback for Students

According to Moriyama et al. (2013), biofeedback treatments, such as neurofeedback, are promising alternatives in treating individuals with ADHD. Research has found that biofeedback therapy can improve attention and behavioral control and increase scores on academic and intelligence tests, and can do so as a treatment that is alternative to or in conjunction with pharmacological medications (Monastra et al., 2005). Improvements on both of these domains could work toward increasing the retention of college students with ADHD, since they often struggle with both. Improving the attentional and behavioral control of college students could provide them the ability to stay focused in class and to study outside of class. Likewise, if students are able to concentrate on the materials being taught in class, it is possible that they could perform better on academic and intelligence tests.

Despite the beneficial effects of biofeedback in treating ADHD, biofeedback is not widely accepted by doctors and health care providers as a proven method for many

conditions, including ADHD, and thus many healthcare providers do not cover this type of therapy. Since few health care providers cover biofeedback therapy, this limits the accessibility of the service. With biofeedback services being limited, many people living with ADHD do not know about it as a known treatment to fight symptoms of ADHD. Those who do know about biofeedback as a treatment option either pay for it out of pocket or have little to no access to it. Therefore, it is encouraged that universities utilize school funding to supply biofeedback therapy at a low-cost or no-cost to students in order to assist those with ADHD in succeeding in college and ultimately graduating with their peers.

Literature Review

There has been much research on the usage of biofeedback techniques for individuals with ADHD. In one study, researchers wanted to determine whether biofeedback would provide additional effects for individuals with ADHD when compared to those taking methylphenidate, a drug often used to treat ADHD (Nazari, Querne, Broca & Berquin, 2011). Two groups of participants with ADHD were either provided with neurofeedback as a treatment or were given methylphenidate as a treatment, and a third group of participants who did not have ADHD, and served as a comparison group. All participants were between the ages of seven and twelve years old, with a majority of participants being male. There were thirteen children who received the neurofeedback treatment, thirteen children who were given methylphenidate, and thirteen children who did not have ADHD.

In the study by Nazari et al. (2011), the individuals that were provided with biofeedback therapy were trained to enhance certain brain waves and to decrease others.

Positive and negative feedback were given to participants in the form of interruptions of a movie that was being played for the individuals with ADHD when certain brain wave lengths were either above or below where they should be to demonstrate the person is paying attention. Children in the study participated in twenty-four training sessions lasting approximately thirty-five to forty minutes each with two to three sessions a week for ten to twelve weeks. Children who were given methylphenidate were administered 20 mg per day of the medication every morning over the course of ten to twelve weeks. Individuals without ADHD received no treatment.

Results from the study by Nazari et al. (2011) showed improvements in both the inattention and the hyperactivity-impulsivity domains of ADHD in both groups of participants with ADHD. There were three categories of information that were measured during this study including response inhibition, intellectual ability, and cognitive improvements; all of which were enhanced for the participants of both treatment groups. The results from this study indicate that neurofeedback can be as effective in treating ADHD as taking methylphenidate.

In another study by Koehler, Lauer, Schreppel, Jacob, Heine, et al. (2009), EEG is used to increase the alpha and theta brain waves in adults with ADHD. Alpha brain waves are known as the relaxation brain waves, and are found when meditating, practicing yoga, or resting the mind. An increase in these brain waves enhances problem solving capabilities and centers emotions. It is very common for adults to be lacking in this brain wave length, as it tends to decrease with age. Similar to alpha waves, theta brain waves are found during relaxing times, such as during the early stages of sleep. Theta brain waves may also occur when someone is unable to concentrate, such as for

people with ADHD. This can also be the brainwave that is initiated when someone experiences a strong surge of emotions.

In the study by Koehler et al. (2009), there were two different groups of subjects with one group consisting of thirty-four adults with a combined form of ADHD, and the other group consisting of thirty-four adults without any form of ADHD. Participants ranged from 18-55 years old, with an equal number of women and men in each group. All participants completed a fifty-minute eyes-closed EEG session, where alpha and theta brain waves were monitored. Koehler et al. (2009) confirmed that participants with ADHD had a significantly larger reading of both alpha and theta brain waves in the frontal, central and posterior regions of the brain. In this study, Koehler et al. (2009) found there to be a positive correlation between the symptoms of the inattention domain of ADHD and theta brain waves.

The results of this study indicate that people with ADHD need the most assistance in modifying alpha and theta brain waves in order to accomplish a more relaxed state of being and concentrate better. These results can be used by people who conduct the biofeedback sessions using an EEG. This is valuable information when determining how to appropriately modify the brain activity of people with ADHD to a level that promotes concentration and relaxation.

In another study by Monastra, Monastra and George (2002), a trifecta of treatment options were administered to individuals with ADHD, in order to assess the effectiveness of biofeedback therapy as a viable treatment option. The three treatment options include administration of Ritalin, EEG biofeedback therapy, and analysis of parenting styles. All participants were administered 5 mg of Ritalin daily, and all parents of participants

attended a ten session parenting class. Just over half (51%) of participants also received biofeedback therapy weekly. In order to account for long-term effects of each variable, a one-year post-treatment assessment was conducted with the participants.

Participants in the study by Monastra et al. (2002) included one hundred children, aged 6 to 19, with 83 males and 17 females. All participants were diagnosed with ADHD based on the DSM-IV criteria, and none had a history of treatment prior to participating in this study. All participants received stimulant therapy and parent counseling, while only 51% of participants were given biofeedback therapy in addition to these treatments. For those who received biofeedback therapy, they had individual 30 to 40 minute biofeedback sessions every week until they reached a degree of cortical slowing, which improved the arousal of the frontal cortex where executive functioning occurs. On average, this process took 43 sessions to complete (Monastra et al., 2002).

The results of the study by Monastra et al. (2002) indicated that Ritalin and a parenting style that focused on reinforcement worked best in countering the symptoms of ADHD in children in the short-term (Monastra et al., 2002). In the follow-up assessment however, if either of the variables were no longer being implemented, the individual would still struggle with side effects of ADHD. The results also demonstrated sustained improvements for the group who received EEG biofeedback therapy, both post-treatment and one year after the study concluded, implying long-term effects of the treatment. These results are critical in understanding the impact that biofeedback can have on individuals with ADHD because it highlights the effectiveness of the treatment in comparison to other widely accepted methods, such as stimulants.

Discussion

There have been many studies that demonstrate the positive impact that biofeedback therapy can have on individuals with ADHD. Among the benefits associated with receiving biofeedback therapy as a treatment include an enhancement in attention and behavioral control and an overall increase in academic and intelligence tests scores (Monastra et al., 2005). These two improvements alone can increase the chance that a student with ADHD will be able to concentrate on their studies and perform better in school. It is also possible that retention rates for students with ADHD can improve with the acquisition of these skillsets as well because students with ADHD will be more able to participate in their college experience like their peers.

Biofeedback has been shown to have many beneficial contributions to quality of life for individuals with ADHD (Bakhshayesh et al., 2011; Hodgson et al., 2012; Horowitz, 2006; Hutchinson et al., 2014; Lofthouse et al., 2011; Nazari et al., 2011; Monastra et al., 2005; Monastra, Monastra et al., 2002; & Moriyama et al., 2012), and should therefore be considered when contemplating services for universities to provide for their students. There have not been any negative outcomes found to stem from the use of biofeedback therapy for individuals with ADHD, but there are still other limitations to consider.

Limitations

One limitation of the current research is that there is not sufficient research on biofeedback on adult participants with ADHD. With this lack in research, it is being implied that the studies with children will yield similar results as with adults with ADHD. Similarly, there is no research on biofeedback administration on college students with

ADHD, making it difficult to determine the exact effectiveness of this treatment with the proposed population.

The cost of efficiently performing biofeedback machines and the attainability of trained personnel to administer biofeedback treatments are factors that may inhibit schools from being able to provide these machines for students. Since this is not a method that is highly recognized within the medical field, there may also be some hesitation in universities supporting it. Additionally, there must be professionals that know how to work the equipment to administer the treatments at every university that supplies this method of treatment. Although there is limited research on the effects of biofeedback for ADHD, there is some literature that has proven its validity and should not be discounted.

Implications

Considering the positive impacts that biofeedback therapy has for people with ADHD, colleges and universities should consider buying the equipment for biofeedback therapy and providing these services for students. This type of service could be implemented within the college student health center, as a service available to students. Having biofeedback services at a college enables the university to provide this service at a low cost or no cost for current students. The cost of the service should be determined by the individual university, and could depend on such factors as cost and maintenance of the equipment the university bought or how much the student health center fees cost and what that universities health fee covers.

Conclusion

Research has shown biofeedback treatments to improve the ability to concentrate and stay focused for longer periods of time, which are common ailments of ADHD that

stand in the way of success in college. The cost of biofeedback services is a barrier for many people, inhibiting access to it for the vast majority of people. Since there is limited access to biofeedback services in general, it can be concluded that students will have even limited access to these services since many students also have limited access to healthcare. In addition to the benefits that students will experience from the biofeedback treatments, universities would also benefit from offering this service through higher retention rates of students with ADHD who participate in the biofeedback therapy.

Career Counseling for all Populations

In the 1940s, formal training of career counselors began as the government allocated funds to colleges and universities throughout America (Pope, 2000). From that point on, there has been a shift in focus from people working to pay the bills to people pursuing careers that possess meaning to them, which has further increased the need for career counselors. Starting in 1990, there was a shift in the way that career counseling was performed, with a focus on multicultural competence (Pope, 2000). The shift in focus of career counseling to be more inclusive to a multiple range of people came about from a multitude of factors including the civil rights movement, the feminist movement, and the increase in diversity in America. Long gone is the average White American male who seeks an office job to support his wife and family. Instead, today's workforce brings about a multitude of people from various ethnicities, religions, genders, abilities, and countries of origin.

With the increase in multiculturalism and diversity in America, college campuses have become more diverse encompassing students from a multitude of race, ethnicities, abilities, religions, and cultural backgrounds. With the increasing population of diverse students, comes a great gap of unique needs for colleges to address in order to help retain these students. Students from diverse backgrounds are often underserved, with few of the services available at the college that cater to their individual needs. Career counselors often are lacking the proper training and information on how to effectively serve the diverse range of students that attend colleges today. Students need to be viewed as individuals, with each piece of them making up who they are, including their race and ethnicity, where they come from, how they identify themselves (e.g. male, female,

transgender, gay, lesbian, bisexual, other), and stereotypes they have had to battle in their lives. Each of these elements of a person plays a role in who they become and what their college experience and career exploration will be like.

Looking at career counseling models that were created for populations of students that are underserved and underrepresented is how career counselors at a college campus can provide accurate and effective assistance to all student populations, including traditional and nontraditional students. One example of a career counseling model that takes into account diversity is the Career Counseling for Underserved Populations (CCUSP) Model (Pope, 2011; Pope, 2012). All students can benefit from a more inclusive model of assisting students, because inclusive models take into account individual differences that are specific to the person. Even traditional students have some aspect about them that makes them underrepresented, such as being raised by a grandparent, being vegan, having allergies, or dealing with anxiety. These characteristics play a significant role in students' lives but are often overlooked. It is being argued that all students are in some way non-traditional and thus can benefit from college career counselors using an inclusive career counseling model such as the Career Counseling for Underserved Populations model (Pope, 2011; Pope, 2012).

Underserved Populations

Underserved populations include a wide range of groups of people but can include such populations as first-generation college students, LGBTQ individuals, people who migrated or immigrated to the US, those with a disability, veterans, foster youth and people from minority ethnic backgrounds. The commonality among these groups when it comes to students is that they typically lack sufficient support in the college setting, and

thus require a more inclusive and supportive college environment. Thinking that one does not belong in the college environment the person attends can lead to feelings of marginality from his or her peers, which ultimately leads to issues in persistence (Schlossberg, 1989). Students who are unable to make a connection to the college they are attending do not feel like they matter and do not persist in attending the college (Schlossberg, 1989). When inclusive services are not provided for underserved populations of students, these students do not feel like they matter or like they have any reason to continue coming to college and thus do not succeed at their goals in college.

Some common career development issues for the various groups of people in the United States that create barriers for them are discrimination, uneven access to resources, language, religious, and cultural differences (Pope, 2012). These inequalities can be addressed through the use of inclusive models for counseling at college campuses across the US. Career counseling models that are intended for diverse populations share a similar foundation to how a counselor would provide services to someone from majority backgrounds. The main difference is that the newer, more inclusive model has more of a focus on the different aspects that make up a person. It is thus concluded that using a career counseling model intended for diverse populations will also be a strong choice in working with people that are from minority populations and traditional majority populations.

To be culturally diverse, career counselors should consider the whole student, including all aspects of the person not just ethnicity or race. Some of the common overlooked attributes that make up a person include abilities, age, socioeconomic status, religion, dietary restrictions, and being a part of the military or a family member of a

veteran. Pope (2012) explains that this wider view of one's culture is far more inclusive than previous definitions of the word which only looked at ethnic backgrounds. It is important for career counselors to consider all aspects of a student so they can receive the most effective help possible. For example, if a single-parent comes in for career counseling, the following personalized factors would need to be considered when looking into possible career options: whether child care is needed, types of emotional support the parent has, analysis of sex role identity, building of self-concept, exploration of non-traditional career opportunities and how to combine work and family roles (Burge, 1987).

Traditional Students

Although it is important to address the needs of underserved populations of students, it is equally important to provide effective, reliable, and sensitive approaches to students who are considered to be traditional students. According to Deil-Amen (2011), a traditional student is "someone who begins college immediately after high school, enrolls full-time, lives on campus, and is ready to begin college level classes" (p. 1). Traditional students in college could also include those who are between the ages of 18 and 24, are financially supported by their families, and do not have to work while enrolled in college. These are a few of the many characteristics that a traditional student could possess. It is important to consider these characteristics while examining the applicability of counseling models designed for underserved populations to traditional students, because they are similar to characteristics that are common among non-traditional students as well. The traditional student of today possesses or acquires an aspect about them that distinguishes them from their peers. For this reason, it is maintained that a career

counseling model that is intended for diverse clients would also work well with those previously considered traditional students at a college campus.

Students Mattering

There are many student development theories that address the issue of persistence in higher education. One theory that describes the process of students feeling like they matter to a university is Schlossberg's theory on Marginality and Mattering (1989). In her theory, Schlossberg (1989) describes marginality as feelings of inferiority and like one does not belong to the community they are attending, and mattering as meaning that a student has a sense that they matter to someone.

The 13 Keys of The Career Counseling Underserved Populations Model

The Career Counseling Underserved Populations Model (CCUSP) was designed by Pope (2011; 2012), and was created in order to fill in the gap between career counseling for traditional clients and non-traditional clients, which he referred to as "underserved" populations. In the CCUSP model, there are 13 Keys that are discussed which highlight the responsibility of the career counselor when working with underserved populations.

Key 1: Take responsibility for your own biases and prejudices. This first key is the foundation for the remaining 12 keys, and must be accomplished in order for the other keys to be put into effect as well. Awareness of any potential biases and prejudices against a person or group of people is vital for counselors to know in order to prevent those biases from getting in the way of the counselor providing effective services to students. Biases can affect a counselor's ability to choose and implement the proper intervention for a student. Essentially, biases and prejudices are barriers to student

success, and thus must be eliminated. In order to abolish biases and prejudices, counselors must acknowledge that they exist and then do their part to research other cultures as well as attend workshops on other cultures of people to widen their scope of those who differ from themselves.

Key 2: Know the process of cultural identity development and use it. There are many cultural identity theories that help explain the process of various cultural groups' development of identity. Possessing knowledge on some of these different theories of cultural identity development is important so that a counselor can have a better understanding of what the client's experience may be like. For example, Corenblum (2014) created a racial and ethnic identity development model for first nation adolescent children living in Canada. Within this theory, Corenblum (2014) clearly depicts the process that Canadian children undergo during their ethnic-racial identity in childhood. This is one of the many identity development models that have been developed for counselors to use in order to better understand the clients they serve.

Key 3: Know the special issues of specific cultures. Having multicultural training within degree programs can work towards the acquisition of knowledge about other cultures, but counselors need to make an effort to accomplish this post-graduation. It is can be simple to become comfortable in doing a job and feel as though there is no need to continue to learn or grow any more to do the job effectively. It is important, however, especially for counselors on a college setting with the amount of diverse students rising each year, to attend workshops, participate in conferences, and do their own research to gain awareness on multiple cultures. This also applies to different characteristics, beliefs, and values of a person that would affect their career decision-

making process, such as someone who may have a religious belief that women can only work in helping fields like teaching, or someone who is a parent and would require a profession that they can do part-time. These are only two of the many beliefs and characteristics that a student may present when they visit a career center.

Key 4: Directly address issues of discrimination. Openly addressing any issues of various forms of discrimination such as racism, ableism, and ageism is an important task for a career counselor to go over with a client. For college students, this may be their first time being exposed to culturally diverse people and thus can benefit from a counselor bringing it to the surface and working on it with them. This can be done in individual counseling or in group workshops where students can share their experiences and learn from one another.

Key 5: Group career counseling has a strong appeal to many racial and ethnic minority clients. Group career counseling creates a different dynamic than individual career counseling, mostly due to the multitude of points of view that can be present in a group. Within a group, group members can learn from and teach one another about their individual and differing worldviews. Many ethnic and racially diverse people can benefit from group counseling because there are characteristics of group counseling that work with their particular beliefs about seeking help. For example, Asian clients have been found to prefer a more directive and authoritarian style which can be achieved in group counseling (Pope, 1999). Additionally, in many Islamic countries group counseling is viewed as an acceptable way to seek help and to be able to grow as an individual (Banawi & Stockton, 1993). There are many benefits of group counseling

including being able to share one's own experience as well as learn about others experiences. There is also a shared goal in group counseling of getting help.

Key 6: Pay particular attention to the role of the family. For some people, their family may play a significant role in their career decision-making process, and thus should be explored by a career counselor in order to appropriately understand everything that the student does and participates in at a career center on a college campus. This is particularly true for individuals from collectivistic backgrounds, as these cultural groups rely heavily on the influence of the family in decisions for each member of that family. It is important not to assume that someone is under the influence of his or her family due to their culture, but to be open to asking the client about their individual experience with their family. One activity that could be used with students in a career center is to create a family genogram which allows them to explain their family and the role that they play in the student's life (Pope, 2012).

Key 7: Pay attention to the special issues of dual-career couples. When both partners in a relationship have careers, they are said to be a dual-career couple. These couples may have challenges balancing work and family responsibilities between them. In some cases, the partners may divide the house work evenly and have their own full-time careers, while other couples may have one partner that works part-time and takes on more housework and the other works full-time and has fewer responsibilities at home. More often, male and female couples will have the female taking on more household responsibilities. Because this traditional method is constantly evolving, it is important that counselors not assume anything about a client's experience, but to keep these norms in mind.

Key 8: Be aware of the special issues when using career assessment

inventories with individuals from various cultural communities. When using assessments with clients, it is of good practice to know which assessments are more culturally sensitive and which assessments may not be applicable to certain groups of people. Acquiring this information can be accomplished through doing some research on the assessments, and any critiques of the assessment, prior to using them. To assume that all assessments can be generalized is to do the students a disservice. It is vital that career counselors know how, for what purpose and on what population an assessment was created. Knowing this information will help a career counselor know when an assessment may not produce reliable results for a particular group. Furthermore, it is important to know about multiple assessments because there should not be just one that is used for everyone; Career counselors should be mindful of whether a particular assessment is appropriate for the student with whom they are working.

Key 9: Help clients overcome internalized negative stereotypes or

internalized oppression. Career counselors need to understand the impact of oppressive and limiting beliefs that people from minority groups may hold. There may be some internalized oppression that limits a student's belief that they can succeed at a career. The ability to recognize when this is occurring is critical for a career counselor because if they do not, then they cannot help the students defeat and challenge the beliefs.

Key 10: Pay attention to coming out issues with clients for whom their

cultural membership is not obvious. For Pope (2012) "coming out" refers to the "disclosure of minority status" (p. 26). This can include the disclosure of one's race or sexual orientation as well as other characteristics about oneself that are potentially

viewed as unfavorable by the majority group. For example, someone may disclose that they battle with anxiety, which can be viewed as a defect within that individual. This can be an emotional and confusing process for the student, and should not be taken lightly. Some cultures may also have negative views on such a characteristic, which can create further anxiety.

Key 11: To overcome societal stereotyping as a limitation on occupational choice, use occupational role model and networking interventions. As discussed in Key 9, some ethnic backgrounds may have ingrained ideas that there are certain careers that cultures and genders can and cannot pursue. These beliefs can be limiting and often prevent members from exploring options. College career centers can help to overcome these stereotypes by providing events and workshops where there might be guest speakers that hold non-traditional careers (i.e. male nurse or woman scientist). Hosting these types of role modeling and networking events for students can help challenge their beliefs about what they can and cannot do for a career.

Key 12: Maintain a supportive atmosphere in your office. It is important that students feel welcomed when coming into a college career center, or else they will not want to come back. There are many ways that counselors can create a welcoming environment in college career centers. This can include having open space for students to hang-out as well as individual offices for those who desire privacy, hiring a diverse staff so students can feel like they belong, displaying motivational career posters with culturally diverse people, and providing equal access to the office and services to all students. Pope (2012) also suggests having culturally appropriate books on shelves in the office for students to access.

Key 13: Provide positive social advocacy for your culturally diverse clients.

Advocating on the behalf of all students, especially those of minority standing, is something that all counselors are ethically responsible for doing. It is important that counselors stay up-to-date on issues that their students are facing so they know how they can properly advocate for their students. As Pope (2012) explains, this goes beyond the typical “do no harm” to clients, but goes a step further to work toward creating good for the clients. For example, in order to maintain their F-1 visa status, international students can only work on the college campus they are attending, but often there are not enough on-campus jobs for them, which can create a financial burden. In this case, career counselors can advocate to the college to place priority on hiring international students across the campus.

Model in Practice

Career centers on college campuses can implement the CCUSP model with its students in many ways. College career centers could use this model in all of their events as well as in individual counseling with students. All activities, services, and events need to be looked at through a universal and inclusive model such as the CCUSP model in order to analyze the applicability of the service to a multitude of students with differing backgrounds, personalities, abilities, and cultures. For example, career centers could use it when planning an event, when providing career counseling services to students, when implementing a workshop on career related services, or when choosing and administering a career assessment.

For planning a career related event at a career center on a college campus, career counselors should take into account the 13 Keys that Pope (2012) describes in his model

for underserved populations in order to prevent any biases toward majority populations. Taking into account the students that the university serves is a critical piece in being inclusive to all students when formulating workshops.

While doing individual counseling for students at a college career center, counselors can implement the 13 Keys that Pope (2011; 2012) defines to ensure that they are open-minded toward cultural and individual differences between and among people and populations. This model provides an effective method for working with a diverse population of students. Each of the 13 Keys that Pope (2012) discusses in his model work toward a better understanding of the students and what they need to succeed in their career of choice.

It is important that career centers consider the CCUSP model when conducting career workshops for students. Those who facilitate the workshops must go through extensive diversity training so they are aware of individual differences and be able to incorporate those differences into the core of the workshop. Using the 13 Keys, career personnel on a college campus can bring attention to their ability to understand the unique and individual needs of students they serve.

When choosing a career assessment method to use with a student, career counselors can use the CCUSP model to help identify what method would work best for that particular student. There are many factors to consider. Choosing assessments that are more inclusive is an important action that college career centers can take. This requires some research be done on assessments to determine which ones are more universal. This includes assessments that are applicable to different genders, cultures, socioeconomic

statuses, and personality types. There should also be options to take assessments in group settings or individually, to be mindful of personal differences and preferences of students.

Conclusion

Through the use of the Career Counseling Underserved Populations Model, college career centers could be more inclusive in their encounters with underserved populations of students as well as with traditional students. It is important to take into consideration the unique needs of individual students, so as to not marginalize them. When students do not feel understood, they are less likely to persist in college, making it even more vital that college career centers use a model such as the CCUSP model to allow for these students to feel included in the career center, and the college at large.

Limitations

The Career Counseling for Underserved Populations Model is a great tool to use for underserved populations, however Pope (2011; 2012) is the only one to have used this model. Additionally, this model was created based on studies of gay and lesbian populations (Pope, 1996) and Asian populations (Pope, 1999), limiting its generalizability. Although it is believed that using this model on underserved populations of students and traditional students would be beneficial to all students, it has not been proven to work well for all student populations on a college campus. More research would need to be done on using this model on student populations.

Enhancing Access to Higher Education for Adult Learners Through Learner-Centered Online Courses

Higher education in America was originally modeled after colleges in England, following similar expectations, practices, and procedures (Schuh, Jones, & Harper, 2011). As America has progressed, so has the system of higher education in the United States. There are becoming fewer traditional aged students attending traditional lecture classes at a traditional style college. There has become a variety of types of institutions, campuses, students, and class structures. Classes have gone from instruction in traditional lecture halls, to include features such as accelerated course formats and distance learning that anyone around the world can participate in (Ross-Gordon, 2011).

The introduction of technology into higher education has had many impacts, and will continue to have many more in the future (Maloney & Oakley, 2010). Technology has increased the number of students that are able to take courses at a college. This is especially true for students who were unable to physically be in a classroom prior to the inclusion of technological advances, such as online courses (Renes & Strange, 2011). Online classes have made it possible for many people to pursue a college education without having to physically be on a college campus. This benefits many people such as those who live in a rural area without a home college to attend, people who are constantly being relocated like military personnel, and people who have disabilities that prevent them from being able to travel to a college campus regularly. As Renes and Strange (2011) state, technology is “increasing access to higher education by eliminating barriers of time and space” (p. 205), creating easy access for anyone to acquire college credits.

The impact that technology has had on society is a surplus in the wealth of knowledge available. With all the information that is obtainable, employers now expect employees to have this knowledge or to actively seek it in order to maintain their positions. As Frey (2011) has found, “a postsecondary degree or credential is now an essential qualification for jobs that offer good wages” (p. 21). Frey (2011) has also found that the jobs that are growing the fastest in the U.S. all require some postsecondary education. If adult learners are unable to access higher education, then they are put at a disadvantage when applying for jobs. Research has shown a substantial increase in the number of adult learners that consistently seek to enhance their knowledge base, also known as lifelong learners, by means of technology (Ott, 2011). For these reasons, it is urged that institutions of higher education to implement a learner-centered online learning community within the online courses they offer, in order to increase the success of students, such as adult learners.

Defining Technical Terms

Adult learners are typically defined as anyone over the age of twenty-five, attending college (American Council on Education, 2014). Adult learners are also sometimes referred to as lifelong learners or reentry adults, although these two terms have slightly differing connotations, with lifelong learners referring to people who continue educating themselves throughout their lives, and reentry adults referring to people who went to college, left, and then came back. Another term used to identify adult learners is by referring to them as non-traditional students, although this term may also be used to identify a wide range of students such as students who delay enrollment into college or students who do not have a high school diploma. Adult learners bring into

college their individual knowledge and life experiences (Frey, 2011), which makes for a population of students with unique needs (Huang, 2002; Knowles, 1978; Ott, 2011; Ross-Gordon, 2011).

There are many words to describe *online classes*, such as e-learning, virtual learning, and distance learning. According to a 2014 Integrated Postsecondary Education Data System (IPEDS) report, distance learning is defined as “education that uses one or more technologies to deliver instruction to students who are separated from the instructor” (NCES, 2014b). There are a few different types of online classes available to students, which utilize varying types of *online communities* some, most, or all of the time. The first type of online course is one that is exclusively online, via a virtual platform such as Blackboard or WebCT (Renes & Strange, 2011). The second type of online class is one that has students do most of their instruction online, but also has students meet on-campus throughout the semester, such as for exams or presentations. This type of class is called a *hybrid* course, because it is a mix between a traditional class learning environment and a virtual class learning environment.

Within all online courses, there are two methods of teaching that can be utilized, as well as a combination of the two. *Synchronous* learning occurs when the professor and students are all logged onto a system at the same time (Ott, 2011). In this style of learning, it is possible for students to ask questions of the professor in real-time and receive immediate answers. *Asynchronous* learning, on the other hand, occurs through virtual means such as threaded discussion boards (Ott, 2011). This style of learning allows for the student to log on and access the information at any time. A mixed approach

would utilize a specific meeting time for class to log on online together, and also have a virtual thread where students could post and answer questions on their own time.

The most successful form of online learning community, whether it be synchronous or asynchronous, is a *learner-centered* community (Hermans et al., 2014; Renes & Strange, 2011). A learner-centered online community is a virtual environment that is focused on the needs of the students and can be changed to meet the changing needs of the students (Hermans et al., 2014). A well-developed learner-centered online community is one that encourages connections between students and the professor (Renes & Strange, 2011). This type of class environment enables the possibility of students to get personalized education, an element that is lacking in many traditional college courses. There are high interaction and response rates with the professor, and the professor customizes the experience and teaching style to the students.

Adult Learners: Who They Are

Adult learners are students whose enrollment into college occurs after they are twenty-five years old. The American Council on Education (2014) states that adult learners range “from Iraq and Afghanistan war veterans and GED credential holders to 55-year-old professionals and skilled workers in career transition” (www.ACE.net). The students within this population are likely to have a family, full-time job, and other responsibilities that they must juggle while attending college. Often times, adult learners tend to come back to college to either start a new career, or to refine their skills in their current career. For close to twenty years, adult learners have made up approximately forty percent of enrollments in higher education (American Council on Education, 2014), making them a sizable population. Additionally, the National Center for Educational

Statistics (NCES) projects a fourteen percent increase in college enrollments for students aged twenty-five and over by 2025 (National Center for Educational Statistics, 2014a).

Adult learners come from a various range of personal and educational backgrounds, each with unique experiences that have brought them to the college system (Huang, 2002; Ott, 2011). The unique experiences that many adult learners come to college with can get in the way of the learning process in college (Cercone, 2008). For example, an adult learner that grew up in a small town, with limited access to various technologies, may have a challenging time understanding how to navigate their way through college. Adult learners also seek out knowledge based on what they are experiencing in their lives (Knowles, 1978), rather than on what they are told they should know based on a set curriculum. It is more challenging for adult learners to stay motivated on subjects they see no practical use for, when all they need to know is how to do their current job more efficiently.

Theory of Andragogy

Malcolm Knowles pioneered the term *Andragogy* in the United States to refer to the education of adults, and more specifically to how adults learn. Knowles (1984) found that there are clear differences between how adults learn (andragogy) and how children learn (pedagogy). Knowles (1978) states that “starting shortly after the World War I there begun emerging both in this country and in Europe a growing body of notions about the unique characteristics of adult learners” (p.10). With his curiosity of how adults learn, he dedicated much research to discovering the unique ways in which adults learn, forming the theory of adult learning called andragogy.

Through his work on andragogy, Knowles (1984) identified certain characteristics that are specific to adult learners: self-concept, experience, readiness to learn, orientation to learn, and motivation to learn. The listed characteristics of adult learners explain the change that adults tend to endure upon reaching adulthood, which are becoming self-motivated, person-centered, and ready to learn. This is important when considering programs for adult learners, such as online learning environments, since adult learners require more freedom and choices in what they are learning. They cannot be expected to take and participate in an online classroom that does not foster their way of learning. The proper modifications should be made based on this population and their characteristics.

Knowles (1984) also identified four learning principles of adult learners. The first principle states that adults require involvement in the planning and evaluation of their learning. Second, Knowles (1984) contends that experience is the greatest tool for learning for adult learners. The third principle explains that adults tend to seek knowledge that they require knowing for their personal or professional life. The final principle clarifies that adult learning is more problem-centered, rather than focused on content. These learning principles correlate with learner-centered online classes because it allows the adult learner to have some control over the learning process, which can be customized to their needs personally and professionally. Additionally, with these principles in mind, online classes can be modified to include a learner-centered approach to meet the needs of adult learners based on their specific needs and ways in which they learn.

Enhancing Access to Higher Education for Adult Learners

Many students in college are no longer traditionally aged, as they once were (Ross-Gordon, 2011). The number of adult learners is continuing to increase on college

campuses throughout the nation (Council for Adult and Experiential Learning [CAEL], 2011), creating a population with unique needs to be met (Ross-Gordon, 2011; Ott, 2011). Adult students have adult responsibilities, such as families, work, bills and other similar obligations (CAEL, 2011). Looking into adult learner's way of learning can help universities understand and better meet their needs. Adult learners have unique needs that need to be addressed in order to increase access to higher education. Online learning with the addition of a learner-centered approach in particular can help meet the needs of adult learners, as it allows for a more personalized experience to higher education that adult learners require. Therefore, institutions of higher education should include the addition of learner-centered online courses to all online classes. If a learner-centered model is not adopted by universities, they will not meet the needs of adult learners and may unintentionally deter adult learners from taking college courses.

Literature Review

Adult learners are a growing population on campuses in the U.S. and have a unique set of characteristics when compared to their traditional aged peers, making them a population that colleges should consider when generating new programs and when deciding how to modify current ones. One aspect of technology that has proven to have a large positive impact on including adult learners in higher education is the addition of online courses, because of the flexibility these classes provide for students whose main life identity is anything other than just being a student. Understanding the link between adult learners needs and learner-centered online learning is vital to being able to increase access to higher education for this population of students.

Adult Learners

There are many ways that adult learners are distinguished from traditional aged students (Cercone, 2008; Huang, 2002; Ott, 2011; Ross-Gordon, 2011). Most adult learners make an active choice to take time out of their already developed lives to enter into college when they are ready to do so as adults, making them more internally motivated to continue in college (Cercone, 2008), and very often they know what it is they want to learn (Knowles, 1984). Adult learners also tend to be self-directed in college and therefore actively participate in their learning (Huang, 2002). Students who attend college as adults have life experiences that guide their studies and motivations (Cercone, 2008; Frey, 2011 Huang, 2002; Ott, 2011). This insight into what they want to study makes them more involved in the learning process and it makes them build stronger connections with their professors so that they can express their needs to the professor.

One of the characteristics common among adult learners is that they may be managing multiple life roles while they attend college, such as being a parent, being active in their community, or working full-time (Calvin & Freeburg, 2010; Cercone, 2008; Ross-Gordon, 2011). The many roles adult learners often possess can work as positive influences when they are supported by those roles (Ross-Gordon, 2011). For example, an adult learner may be active in their local church, and receive a lot of support from that community. However, Ross-Gordon (2011) contends that it is more common for the multitude of life roles to present challenges in an adult learner's ability to be fully engaged in campus activities. In addition, the multiple life roles can increase the necessity of flexible schooling options for reentry adults because they need to find classes that work with their preexisting schedules (Ross-Gordon, 2011).

Online Classes

Classes available online are steadily increasing in higher education (Huang, 2002; Ott, 2012), making their use and viability of much interest to many universities.

Synchronous and asynchronous classes are becoming an integral part of many colleges as the importance of providing such courses is emerging. The ability to log on to a class from anywhere and earn a degree, certificate, or units is highly appealing, especially for adult learners, who may find it more challenging to be able to get to a campus on a regular basis. Many adult learners have families, children, and other life responsibilities to attend to first, before they are a student.

Online classes require certain characteristics from students taking the courses in order for them to succeed in a virtual setting (Cercone, 2008; Hermans, Kalz, & Koper, 2014; Huang, 2002; Renes & Strange, 2011; Ott, 2011). Literature suggests that within e-learning environments, students are responsible for making sure they understand the curriculum, knowing how to ask for the help they need, doing the work on their own time, and tracking their own progress to name a few. Without a designated classroom meet-up, students must be disciplined enough to do these things, and many more, on their own time. The bulk of responsibility of being and staying informed in online classes lies with the student.

Learner Centered Online Environments

A learner-centered model in education is highly beneficial for students since it enables the students to get the personalized educational attention that they deserve. This is exceptionally important for adult learners who tend to desire more personalized attention in college. As Hermans, Kalz, and Koper found, providing a learner-centered

virtual community “puts the learner in control of his/her learning” (p. 10). Being in control of what is learned and how it is learned is consistent with the unique characteristics of adult learners previously discussed. Learner-centered courses are also well constructed which “help cultivate a connection with students” (Renes & Strange, 2011, p. 208). When students know where to look for course materials and know that the professor will be available and open to their requests, then students feel more engaged in the learning process.

Adult Learners and Learner Centered Online Learning

At both the community colleges and four-year universities, there has been an increase in the availability of classes both on campus and online (DiMaria, 2007; Hermans et al., 2014). The accessibility of online courses is an essential component of enabling access to higher education for adult learners, who are usually balancing work and family outside of school (CAEL, 2011; Frey, 2011). Adult learners have been found to be among the top groups of learners to succeed in online learning environments (Cercone, 2008). The internet is available twenty-four hours a day, seven days a week online, increasing the accessibility of information for everyone. Students taking courses online have the luxury of doing and turning in assignments, watching pre-recorded lectures, and accessing course information when it is most convenient for them to do so. Additionally, professors have the ability to customize their curriculum based on the individual needs and circumstances of their students by means of a virtual community (Cercone, 2008).

Based on the research, it has been found that virtual learning environments are the perfect learning environments for adult learners to be able to balance their personal lives

with their school lives. Adult learners show higher satisfaction rates with e-learning environments than their peers, as well as display a more comprehensive learning from these types of classes (Renes & Strange, 2011). Additionally, when online classes are learner-centered, then students taking online classes outperform students that take classes on campus (Renes & Strange, 2011). Research shows that adult students' characteristics match the requirements for success in online learning. There is a certain maturation that seems to be required in order to succeed in online learning, which adults in college tend to possess.

Discussion

There are clear advantages of utilizing technology and how it can increase access to a postsecondary education, especially for adult learners. However, it is important to maximize the benefits of technology, such as by using a learner-centered philosophy when building online communities. This makes it personal, which is more likely to retain students than an impersonal learning style. Given the information on adult learners and learner-centered online courses previously provided, there are certain limitations and implications to be considered.

Limitations

With all the information that has been presented, there are still limitations to the information. One limitation is that the conclusions of this paper were made based on existing research. Some of the studies that were used to make the conclusions were done on very specific populations (ethnic groups, other countries, etc.), and thus their generalizability may be questioned. It is also important to note that not all adult learners seek a degree; some simply attend college to earn a credential to better their career or to

take a class to enhance their ability to perform a hobby. This difference in aspirations for adult learners is important when determining the retention rates of these students. The individual's reason for attending college, will determine the likelihood that they will maintain interest and persist in virtual college.

Online learning has higher dropout rates when compared to traditional on campus education (Levy, 2007). It is important to address this issue when discussing the advantages of online learning. It is understandable that many students drop out of online classes and never return due to not making a connection (Tinto, 1975) or the professor not responding to students in a timely manner (Renes & Strange, 2011). However, there is no evidence to tell whether those students that drop out are adult learners or traditional aged students; therefore it is difficult to distinguish between the two populations of students. It is also important to note that in one study by Levy (2007), it was found that students' satisfaction with an e-learning course was the top indicator of whether they will drop out or persist in college.

In addition to online classes, there are many other ways in which technology enhances access to college for adult learners. A few of the other advancements in technology include the ability to register for classes online, having access to information on websites twenty-four hours a day, and the various social media outlets that connect students with current students and alumni of a college. All of these features contribute to the inclusion of adult learners in postsecondary education. Technology is also not the only factor that contributes to access to higher education, as there are many factors that work towards a more inclusive postsecondary system. Technology is a key factor, but not the only one to consider.

Implications

With the information presented, it has been found that online classes should be learner-centered and online classes could be advertised more within companies and establishments to reach the adult learner audience. Knowing that this population of students can benefit most from online learning, makes it more evident that virtual learning should also be enhanced with a learner-centered approach to accommodate the growing population of adult learners in society. Since technology can be a difficult obstacle to overcome for some adult learners (Calvin & Freeburg, 2010), it would also be helpful for colleges to host informational sessions to introduce them to the technology they are expected to use and to be able to navigate through, in order to take online classes. Providing an information session could break down any barriers adult learners may have with technology, which may have been a contributing factor to why they were unable to attend college previously. Renes and Strange (2011) found that students do best when they understand the technology that they are using, which can be accomplished by virtual communities having similar designs to one another, so students know where to find information.

According to Knowles (1984), there are four learning principles of adult learners, which can be applied to adult learners in learner-centered online learning environments in many ways. First, allowing students to choose topics for a project or paper, rather than assigning a topic can foster their desire to be involved in the curriculum they learn. Next, professors can designate an assignment that requires involvement in something on their own to allow them to get the hands-on experience they often crave. Third, at the beginning of a class, professors can ask students what they are looking to get out of a

class based on their interests to get an idea of what they are in college for. Lastly, with the understanding that adult learners are less focused on the content of information, professors can have a mixture of assignments and styles of exams to promote learning in different ways.

Conclusion

The current information puts a great emphasis on the importance of technology in allowing adult learners to gain access to higher education. The use of technology has made it possible for adult learners to attend classes in their own homes, making it a convenient way to attend college for students who may have full-time jobs and/or have families to take care of. Technology has also created an information hub that is available twenty-four hours a day, so that students can find the information they are seeking at any time, from anywhere. Most notably, however, technology has created a way for adult students to participate in college in a way that is convenient for them. Promoting and enhancing the way in which online learning is presented to adult learners can be vital to the continuation of this population enrolling and persisting in college. Additionally, providing all students with learner-centered online courses will help engage and retain them.

Substance Abuse Prevention for Student Athletes

Out of all the industrialized countries in the world, America has the highest prevalence of substance abuse (Morin & Collins, 2000). Substance abuse has also been found to be prevalent on college campuses (Rimsza, 2005) and has become a public health concern (Martens, Dams-O'Connor & Beck, 2006). Research indicates that attending college puts individuals at risk of abusing various substances due to the higher level of substance abuse among college students when compared to non-college peers (Ford, 2007). Substance abuse among college students may be prevalent due to certain aspects of the college experience, such as the unstructured time, less contact with adults and parents, and the availability of substances, such as alcohol, on college campuses (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2013).

Student athletes consume more alcohol, more frequently than most of their non-athlete peers (Leichliter, Meilman, Presley & Cashin, 1998) and are at a higher risk of substance abuse (Ford, 2007; Turrisi, Larimer, Mallett, Kilmer, Ray et al., 2009). Additionally, the more involved students are with athletics, the higher their chances are of engaging in binge drinking (Ford, 2007). On average, student athletes consume approximately 7.5 drinks a week while non-athlete students average 4 drinks per week (Leichliter, Meilman, Presley & Cashin, 1998). Due to student athletes having a higher risk of substance abuse than most of the general student population, it is recommended that college campuses create a substance abuse workshop specifically for student athletes that will work towards increasing their knowledge on substance abuse and decreasing their behavior of abusing substances.

Some modes of substance abuse prevention include school-based educational programs, family-based informational programs, and community-based activities (Sussman, Skara & Ames, 2008). School-based programs are those found at educational settings, family-based programs are ones implemented from within the family, and community-based activities are carried out through community resources, such as a religious setting. Out of these various types of programs, Sussman, Skara and Ames (2008) have found school-based educational programs to be the most effective at preventing substance abuse through combating the influences of drug promotion among peers. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2013) also suggests that providing alcohol education to students can aid in eliminating problem drinking.

Why People Abuse Substances & the Threats it Poses

Substance abuse refers to the use of illicit drugs, overuse of prescription drugs, or engagement in binge drinking, which occurs after consuming five drinks for males, or four drinks for females within two hours (NIAAA, 2013). In order to prevent students from abusing substances, it is vital that it is understood why people use substances. Every individual may have their own specific and personalized reason and back story as to why he or she may turn to substances, but the underlying issues are similar. The main generalized reason people continue to abuse substances is because they like how it makes them feel (American Academy of Family Physicians, 2004). For many, the way that substances makes them feel is more appealing than facing the pressure, pain, or reality of their lives. As the American Academy of Family Physicians (2004) states about why

people take substances, “pleasure is a powerful force” (www.aafp.org), and thus people seek out those things that bring them pleasure.

There are many dangers associated with people abusing substances. While under the influence of a substance, inhibitions are lowered and higher risk-taking behaviors can occur (NICAAA, 2013). Risky behaviors are those behaviors that increase the likelihood of experiencing negative outcomes related to health (Ford, 2007). Some of the dangers of the risk-taking behaviors of someone under the influence of a substance may include death, injury, assault, sexual abuse, unsafe sex, academic problems, abuse and dependency on substances, and impaired driving (Ford, 2007; NIAAA, 2013). The NIAAA (2013) also states that “college students have higher binge drinking rates and a higher incidence of drunk driving than their non-college peers” (p. 2).

When someone is addicted to substances, they continue abusing substances despite bad consequences they may experience in their life (American Academy of Family Physicians, 2004). Leichliter, Meilman, Presley and Cashin (1998) found that student athletes were more likely than non-athlete peers to have experienced 18 out of 19 possible negative consequences due to their substance use. Some of these consequences include later regretting actions taken, becoming injured, taking advantage of someone sexually, and getting into trouble (Leichliter et al., 1998).

Student Athlete Characteristics & Risk Factors

Some student athletes come to college as adolescents or emerging adults. Adolescents are identified by the World Health Organization (WHO) (2015) as being between the ages of 10 and 19. College students coming straight from high school would fall into this category, at least for their first couple of years in college. Substance abuse

among adolescents has been found to be a primary health concern in America (Wagner, Brown, Monti, Meyers & Waldron, 1999). The WHO (2015) states about adolescents that “alcohol or tobacco use can jeopardize not only their current health, but often their health for years to come” (www.who.int). It has also been found that student athletes in high school have a higher prevalence for substance abuse than non-athletes in high school (Hildebrand, Johnson & Bogle, 2001; Shields, 1995).

Emerging adults on the other hand are characterized as being between the ages of 19 and 25 (White, McMorris, Catalano, Fleming, Haggerty et al., 2006), which a large percentage of students in college fall under this category. There is a sudden change experienced when students move away from home, begin taking more challenging courses at the college setting, and must make new friends in an unfamiliar environment. During young adulthood, individuals are finding themselves and thus exploring with different ways to define themselves. When students go away to college, they lose a sense of social control and increase feelings of instability, which is also linked to individuals abusing substances (White et al., 2006).

Student athletes engage in many risky behaviors that negatively affect their health including substance abuse (Green, Uryasz, Petr, & Bray, 2001; Kokotailo, Henry, Kosciak, Fleming, & Landry, 1996). Lack of social support is a major factor in heavy drinking at college (White et al., 2006), and can occur when a student is unable to make connections with other students. College athletes spend much of their time with their teams, conditioning, practicing, playing in games, and traveling for away games and therefore do not have as much of an opportunity to make connections with their non-athlete peers (Patel, Greydanus & Luckstead, 2005). This inability to make connections with the

general student population can make a student athlete feel isolated from their peers. College athlete substance abuse may also be due to the fact that many student athletes tend to be sensation seekers, which is a characteristic that has been found to be closely linked to engaging in heavy drinking (White et al., 2006).

Along with maintaining a full-time status in college, student athletes are expected to attend practices, games, physical therapy, medical treatments, and other sport-related activities (Martens, Dams-O'Connor & Beck, 2006). Student athletes are often-times placed under a lot of pressure to perform well in all areas of their life, in order to maintain their place within a sports team. Student athletes must cope with a variety of pressures within their athletic environment, such as to take substances for a competitive edge or to mask pain, to use drugs and alcohol recreationally, to handle being a public figure, as well as to perform well both in academics and athletics (Marcello, Danish, Stolberg, 1989). Among all the different levels of student athletes, varsity athletes, who face the largest pressures to perform, showed to have the highest rate of substance abuse (Barry, Howell, Riplinger, & Piazza-Gardner, 2015).

Social Learning Theory

Social Learning Theory (Bandura, 1977) provides an answer to why people behave the way that they do. Based on Social Learning Theory, people imitate what they observe other people doing. Behaviors can be learned through direct experiences or by watching others (Bandura, 1977). For incoming college student athletes, they see their senior athlete peers using substances, and proceed to mimic their behavior. Another staple to Social Learning Theory is the power of reinforcement (Bandura, 1977), which aides in ensuring an action is repeated again in the future. With student athletes, they get

reinforced to continue using substances either by their peers who also use substances, or through enjoying the way that the substances make them feel.

Literature Review

Ford (2007) conducted extensive analysis of pre-existing data from the Harvard School of Public Health College Alcohol Study (CAS) of 1999 in order to determine causes for higher levels of alcohol consumption among college student athletes. The CAS provided in depth information on substance abuse and other health risk behaviors of college students, focusing mostly on alcohol consumption. Within the CAS is information on over 14,000 students from 119 four-year institutions within 39 of the 50 states of America. Ford (2007) defined student athletes as “college students involved in school-sponsored sports and not students involved in club-level or intramural activities” (p. 1371). Measured in the study were the importance of parties, desired age of legal drinking, amount of social support, amount that parents drink, and perceived levels of drinking among peers.

In the study, Ford (2007) explains the important role that social norms play in alcohol consumption among college students. Social norms on alcohol use can be a powerful influential factor to conform to, rather than to go against and be rejected by peers, who are viewed as the most important social influence, especially in college. From this study, Ford (2007) found that there are certain characteristics that contribute to the likelihood of binge drinking, which include being White, male, never married, Hispanic, younger, Greek affiliated, a high school binge drinker, and having lower grades. Each of these characteristics were used as control variables and were found to be correlated with an increase in binge drinking behaviors among college athletes.

Results from the study show that students who rated parties as very important to the college experience reported higher levels of binge drinking than those who rated parties as low importance. Students who responded that the legal age of drinking should be lower also reported more occurrences of binge drinking. It was also found that when students reported alcohol use by their parents then they too would report higher levels of binge drinking. Additionally, students who socialize with their friends more reported higher levels of binge drinking in college. Finally, the findings from this study show that the higher a student perceived their peers to drink, the more likely they were to engage in binge drinking behaviors. College student athletes reported that they engaged in binge drinking because they believed that binge drinking was the norm (Ford, 2007). College athletes overestimated the alcohol consumption of their non-athlete college peers, and thus believed that they were drinking as much as the rest of the college population. There is a clear correlation between Social Learning Theory and the outcomes from this study, as the participants peers and families had an influence on their drinking behaviors.

In another study by Wagner, Brown, Monti, Meyers & Waldron (1999), the authors conducted research on 167 adolescence aged from 13 to 18 who had received treatment for alcohol and drug problems in order to discover which personal efforts were most powerful at promoting sustained changed in substance abuse behaviors. Wagner et al. (1999) conducted follow-up interviews with adolescents six months after their treatment and then again one year after their alcohol and drug treatment. Participants were categorized into two groups. The first group was the Positive Outcome group, who managed to abstain from substances during the year after treatment. The second group, on the other hand, was for those whose substance abuse behaviors increased or remained

the same as they were before their treatment, and were identified as the Negative Outcome group.

From the results of the Positive Outcome group, four types of efforts were found to be helpful in minimizing substance abuse behaviors. These include self-help, family, new friends, and structured activities (Wagner et al., 1999). Students are building their sense of autonomy during college, so it is of no surprise that self-help is an effective method of battling substance abuse. Student affairs professionals need to be able to provide these types of resources for students to seek out on their own. Family is another key element of support against abusing substances in college athletes. Many students move away for college and thus lose their direct family support. Student athletes then adopt their team and teammates as their new family that they get their support from. It is important that coaches and older team members act as positive role models for the younger athletes.

Similar to the influence that family has on students, their new friends in college also have an impact on their decision-making in college. There is more freedom when living in dorms away from family, making the possibility of exploring the use of substances more easily achievable. Having the right friends that promote a life without substances can be very critical to combating the overuse of substances throughout college. Lastly, structured activities can help minimize the exposure to and allure of taking substances. Structured activities include classes, work, and hobbies. Pursuing these types of activities help keep athletes busy in a structured way that maintains their responsibilities in their lives. These four contributing factors can be utilized in an intervention plan for student athletes.

Substance Abuse Prevention Strategy

Since student athletes have a higher risk than their non-athlete student peers to abuse substances, it is recommended that colleges implement a mandatory informative workshop on substance abuse for college student athletes. College campuses can facilitate a substance abuse awareness program tailored to student athletes that can be part of athlete requirements in order to play on a college team. Making this a requirement ensures that all team members will attend a workshop and receive the information provided. Providing this informative workshop prior to playing a collegiate sport enables the college to reach these students before they are fully exposed to an environment where substances are more readily available. This can be a full day event, where student athletes can get to know one another through engaging in team building exercises, having conversations about substance abuse, and sharing their experiences and expectations.

Shared within the workshop will be details on the dangers of abusing substances including information on the negative consequences associated with abusing, resources available on and off campus for support, suggestions of how to moderate or abstain from substances, and activities to engage in that do not include using substances. As was found in Tricker (2009), peers have a large influence on the prevention of substance abuse, and thus should be included in the substance abuse educational and preventative workshop. Social Learning Theory also places emphasis on learning through watching others, making the use of senior athletes at this workshop a critical piece of the process. Peer student athletes can either conduct the entire program for incoming student athletes or facilitate pieces of it, in order to further promote the validity of abstaining or moderating substance use as a student athlete in college.

Conclusion

To minimize the potentially permanent effects of substance abuse among college athletes, preventative measures must be taken in order to keep students from abusing substances in the first place. Since student athletes are at a higher risk of abusing substances than non-athletes, it is important that college campuses take the initiative to implement some strategies in order to help prevent student athletes from starting or continuing to abuse substances. Based on research, it has been concluded that an informative workshop on substance abuse for student athletes would be helpful in increasing their knowledge on the topic and decreasing their involvement in abusing substances. This workshop should be required prior to athletes being allowed to play for a college sports team, and should be conducted by or collaborated with varsity student athletes in order to promote peer advocacy for abstaining from abusing substances.

Limitations

Providing student athletes with this workshop alone may not be enough to eliminate substance abuse. In order to provide a more holistic approach, the National Institute on Alcohol Abuse and Alcoholism (2013) advises that colleges must provide strategies to prevent, intervene, and treat students who abuse substances. This workshop can serve as a preventative measure, but colleges must also provide services that intervene and treat college athletes who are abusing substances and need or seek assistance.

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