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Increasing College Students' Awareness of Imposter Syndrome

Gabriela Reyes

A Capstone Project for the Bachelor of Science in Human Development and Family Studies

Introduction

Many college students are unaware of how imposter syndrome may be affecting them. Imposter syndrome consists of an individual's internalized feelings of phoniness and fear that someone will discover that they are not as competent as they were regarded to be. Imposter syndrome can have detrimental effects on an individual's education and career aspirations. To support students overcoming imposter syndrome, I created a workshop for TRIO students at California State University Monterey Bay in Seaside, California.

Needs Statement

Imposter syndrome is when individuals perceive themselves as being unworthy of their success, achievements, and accolades. Individuals may feel as though they have fooled others into thinking they are more intelligent than they really are and may have an innate fear that they will be discovered as being frauds or undeserving of their status (Chrousos & Mentis, 2020). Moreover, because of these impostor syndrome feelings, they may attribute their academic success to things like luck or physical attractiveness rather than their efforts and intellect (Peteet et al., 2015). This phenomenon has been shown to be more prevalent in racial and ethnic minorities, first-generation students, and women (Canning et al., 2019; Chrousos & Mentis, 2020; Peteet et al., 2015). Students with imposter syndrome can experience negative psychological effects which may disrupt their academic performance. Imposter syndrome and its negative effects can follow students into adulthood and hinder their career aspirations (Hampton, 2019).

Imposter syndrome has the potential to affect anyone regardless of age, gender, or race. However, it may disproportionately affect individuals from different groups. Those who experience imposter syndrome may feel more susceptible to failure, may lose productivity, and

are often characterized by their own self-doubt and procrastination (Chrousos, George P., et al., 2020). Imposter feelings may also cause individuals to set unrealistic standards for themselves which may lead to them to set unattainable goals. They set these standards and goals in order to try to be worthy of their achievements or in hopes of reaching the expectations they believe others have of them. This in turn may increase imposter feelings and their feeling of fraudulence. In turn, those with imposter syndrome may begin to exhibit workaholic tendencies that can lead to exhaustion and burnout (Parkman, 2019). Some researchers believe that imposter syndrome and anxiety disorder have the potential to activate similar, if not identical, stress response networks. This has led researchers to speculate that there may be an overlap between imposter syndrome and often comorbid anxiety and depression (Chrousos, George P., et al., 2020).

Underrepresented minorities at predominantly White institutions are found to suffer from imposter syndrome at a higher rate than other students (Parkman, 2019; Peteet et al., 2015). African American, Latino, and Asian college students have been the subjects of studies for their elevated rates of imposter syndrome and researchers believe that stereotypes largely contribute to amplified feelings of phoniness (Cokley et al., 2017). A study focusing on the three minority groups found that Asian American students reported the highest levels of imposter feelings (Parkman, 2019).

Researchers have also found that there may be a link between first-generation students and imposter syndrome (Peteet et al., 2015; Canning et al., 2019). First-generation students may face additional challenges that their non-first-generation peers do not experience, this is especially true when first-generation students are ethnic minorities and of low socioeconomic status. These challenges can lead to students taking longer to complete their schooling and lowering their academic aspirations. Moreover, because their family may lack knowledge on the

expectations and challenges that academia holds they may not offer the guidance and support required (Peteet et al., 2015). Having to balance new and pre-existing challenges, expectations, and feeling unsupported in an academic institution may all lead to higher rates of imposter syndrome in first-generation students (Peteet et al., 2015). A study on freshman and sophomore college students in, highly competitive, STEM, classes found that first-generation students disproportionately had feelings of imposter syndrome (Canning et al., 2019).

Women may also be affected disproportionately by imposter syndrome. This is especially true for those who are in male dominated fields like engineering, mathematics, medicine, and science. For instance, a study on medical students found that 1 in 2 women versus 1 in 4 men exhibited imposter syndrome (Hampton & Feller, 2019). A study states that various women graduate students attributed their high exam scores to things like luck, misgrading, and faulty judgement on behalf of professors. The same study found that professional women feel like they are over evaluated by their colleagues and administration (Clance, 1978).

College students who experience imposter syndrome may not know that this is a common affliction impacting students. Individuals with imposter syndrome often think that they are the only ones dealing with these feelings which may result in them not seeking help and instead continuing to experience detrimental effects (Bravata et al., 2020). A student's perception of inadequacy correlates with burnout elements like emotional depletion (Hampton & Feller, 2019). Individuals afflicted with imposter syndrome may have their sense of wellbeing affected which can result in them not sleeping, being irritable, and disengaged (Hampton & Feller, 2019). Emotional suffering, poor mental health, and psychological distress, like anxiety, neuroticism, self-consciousness, depression, and drug abuse, can all be consequences of imposter syndrome (Chrousos & Mentis, 2020; Hampton & Feller, 2019; Lane, 2015). Therefore, imposter

syndrome may result in negative impacts to a student's academic achievements. Researchers have noted that reduced engagement, attendance, performance, and higher intentions of dropping out from school may be associated with impostor syndrome (Canning et al., 2019). Some have concluded that imposter syndrome may help explain increased levels of drop-out rates among women and minorities in various fields such as science, engineering, and mathematics (Chrousos & Mentis, 2020).

Without help, the negative effects that imposter syndrome may have on a student can continue well into their field of work and adulthood. Students suffering with imposter syndrome may reduce their professional aspirations and set goal limitations which can affect their career development (Hampton & Feller, 2019). As adults they may continue to battle feelings of inadequacy and the aforementioned effects of imposter syndrome. Unfortunately, there is limited information on how to treat individuals with imposter syndrome. However, some researchers have suggested that individuals with imposter syndrome be screened for anxiety and depression, due to their comorbid nature, and get the appropriate evidence-based treatment (Bravata et al., 2020). In addition, having support groups and open dialogue can help normalize imposter feelings and target feelings of loneliness brought on by imposter syndrome (Bravata et al., 2020).

Researchers have found that a light-touch approach involving a growth mindset intervention or a social belonging intervention can increase a students' motivation and persistence (Broda, 2018). The growth mindset intervention seeks to change students' attributions for academic success. For instance, instead of students believing that intelligence is fixed, they can learn that intelligence is malleable and that hard work will lead them to become more knowledgeable and successful in college (Broda, 2018). For example, a study found that an online growth mindset intervention increased the GPAs of first-year Latino/a students by 0.40

points (Broda, 2018). The same study found that the average GPA of African American students increased by 0.24 points after having a social belonging intervention. The social belonging intervention consisted of first-year college students receiving an hour long laboratory session which reviewed student surveys of belongingness, student essays, and included encouraging speeches from students who have begun to overcome their own feelings of non-belonging. Studies like these have demonstrated that first-generation students and minorities can benefit from growth mindset and social belonging interventions by improving academic success and their sense of belonging, two key contributors to reducing impostor syndrome.

Given that students may unknowingly have imposter syndrome, in order to heighten awareness and decrease feelings of impostorism, I created a virtual workshop for students in the TRIO program at California State University Monterey Bay in Seaside, California.

Theory

Developmentally, many college students are in what Arnett (2000) called emerging adulthood. During the period of emerging adulthood, approximately spanning ages 18 to 25, young adults may experience an age of instability and an age of identity exploration. The age of instability is the feeling that emerging adulthood is one of the most unstable periods in life. Young adults are faced with uncertainty, must make a lot of important decisions, and face various life changes. The instability they face, especially when attending college, may result in them experiencing anxiety and sadness that can lead them to drop out of college, self-medicate, and engage in substance abuse (Arnett, 2005). This feeling of instability may feed into students developing imposter syndrome. Imposter syndrome is when individuals fear being discovered as frauds, and believe they are undeserving of their success. Imposter syndrome creates feelings of inadequacy, resulting in emotional suffering, poor mental health, depression, and drug abuse

(Chrousos & Mentis, 2020; Hampton & Feller, 2019; Lane, 2015). Seeing as young adults must brave a period of instability where their mental health may be affected, they may benefit from support and knowledge about imposter syndrome since it heavily affects college students, is not widely discussed, and may be particular to emerging adulthood. Further, in the period of emerging adulthood, the age of identity exploration consists of individuals trying to figure out who they are and what path to take for education and employment. Imposter syndrome can affect the way a student perceives themselves, their academics, and their career aspirations. So, young adults facing imposter syndrome, may lower their academic and career aspirations which can result in lifelong ramifications (e.g., lower earnings or limited employment opportunities). Therefore, I am creating a series of lessons to increase college students' awareness of imposter syndrome.

Consideration of Diversity

My project will be conducted at California State University Monterey Bay in Seaside, California with students in the TRIO program. The ethnic composition of the participants is not expected to be reflective of the university's greater population. According to the university's Enrollment Fast Facts (Headcounts) for 2020 Spring, California State University Monterey Bay is 44% Latino, 29% White, 8% Asian American, 4% African American, 1% Native American, 1% Pacific Islander, and 8% two or more races. In addition, 32% of students are of low socioeconomic status, 53% are first generation college students, 33% are 18 to 20 years old, 45% are 21 to 24 years old, 14% are 25 to 30 years old, and 8% are 31 years or older. I anticipate that my participants will not be ethnically and socioeconomically reflective of the overall population of California State University Monterey Bay given that this program is intended for low-income, first-generation students, and students with disabilities. Further, I cannot guarantee that all

participants will be in the emerging adulthood age range of 18 to 25. Since the lessons I will be conducting are in English, participants are expected to be proficient enough to understand the content being delivered. Participants who are not English proficient may be excluded from participating. Because much of the content and studies referenced focus on African American, Latino, female, and first generation college students, not all students may find the content applicable to them. Further, there is no consideration or research for how students with disabilities are affected by imposter syndrome. The absence of information on imposter syndrome may exclude a population of students who may also be vulnerable to imposter syndrome and its effects.

Learning Outcomes

I intend to provide a 30 minute virtual presentation to first year college students at California State University Monterey Bay in Seaside, California.

By the end of the project, participants will:

1. Describe feelings associated with imposter syndrome.
2. Identify one factor which contributes to college students feeling like imposters.
3. Identify a way someone with imposter syndrome can manage imposter feelings.

Method

CSUMB students in the TRIO program were emailed a link to a YouTube video containing a voice narrated presentation and a Google forms link that they should complete after watching the video. In the video, first, I introduced myself and provided some background information on who I am and the reason I was delivering a 30 minute asynchronous presentation. Then, I asked students to get a writing utensil and paper or open up a program where they can note some information. Then, I asked students 20 questions from the Clance IP Scale. See

Appendix A. Then, I had students add up their score and hold on to that number. I then began my presentation on imposter syndrome, which took about 20 minutes. See Appendix B. I provided students with a definition of imposter syndrome. Then, explained the feelings associated with imposter syndrome. Then, I followed up by explaining what individuals with imposter syndrome may attribute their success to. Then, I explained that imposter syndrome can affect anyone but certain groups may be disproportionately affected. I then discussed the groups and provided some examples. Then, I explained the effects that imposter syndrome can have on students and how it can affect their adult lives post-education. Then, I showed the video:

<https://youtu.be/ZQUxL4Jm1Lo>. Then, I explained why I thought this video was important for students to watch. Then, I circled back to the Clance IP Scale. I explained what the test is for and what their scores suggest. See Appendix A. Then, I shared my score and what that score suggests. See Appendix B. Then I modeled one of the strategies for coping with imposter syndrome by sharing one of my experiences. I shared how prevalent imposter feelings or symptoms are. Then, I discussed some strategies to manage imposter feelings and provided examples of implementation. Then, I thanked students for participating and asked them to fill out a Google Forms survey which was sent to their university email and also provided in the description of the video. See Appendix C.

Results

Learning outcome 1 was that participants would be able to describe feelings associated with imposter syndrome. I believe that the learning outcome was partially met. From the responses collected in the post-presentation questionnaire, many students shared their own imposter feelings versus solely stating what was discussed in the presentation. Out of a total of eight participants, four of them responded with “I” statements when asked to “Describe feelings

associated with imposter syndrome.” This is not something that I was looking for or expecting. It signals that students may be identifying with imposterism and the feelings associated with it or the content. However, five out of eight participants were able to describe feelings that are tied to imposter syndrome. See Table 1 for their responses.

Learning outcome 2 was that participants would be able to identify one factor which contributes to college students feeling like imposters. I believe that this learning outcome was partially met. From a total of eight participants, five were able to identify at least one factor which may contribute to imposterism in college students. In addition, all four participants who met the learning outcome actually named more than one factor in their response. See Table 2 for their responses.

Learning outcome 3 was that participants would be able to identify a way someone with imposter syndrome can manage or cope with imposter feelings. I believe that this learning outcome was met. Out of the eight participants who responded to the questionnaire, seven identified at least one coping mechanism that was covered in the recorded presentation. Further, three participants named multiple coping mechanisms. These are the reasons why I believe that learning outcome 3 was met. See Table 3 for their responses and Table 4 for a summary of met learning outcomes by student.

Discussion

I believe that this project was successful. The target audience for this project were college students, who are largely in Arnett’s theory of emerging adulthood. Since emerging adulthood is a period where young adults face a large amount of instability and are trying to figure out who they are and what they want to be, participants can now begin to recognize imposter feelings and not allow them to dictate how they see themselves or let imposter feelings become a barrier to

success. Further, students also learned which groups may be disproportionately affected by imposter syndrome and why. This was done to help participants recognize imposter feelings as being valid and common in different groups of students. I think that covering various coping mechanisms and providing examples or demonstrations for each was beneficial for participants. When participants were asked to identify a single coping mechanism, half of the participants identified at least two coping or management techniques. Participants were able to learn that they are not alone in the challenge of managing and coping with imposter feelings.

In terms of diversity, I think my project included most students, however, I did not ensure that all participants were in the period of emerging adulthood. It is possible that some participants were not between the ages of 18 to 25. This may have caused them to feel like the content was not as tailored to them.

If I had to do this over again, I wish I would have done my presentation in person or live through Zoom. Because of Covid-19, I was not able to do the presentation in person. Moreover, student burnout and scheduling issues did not allow me to do the presentation live on Zoom and resulted in me having to rely on a recorded presentation to execute my project. I feel as though an in person presentation or Zoom meeting would have been more effective since it would have led to dialogue and increased participation. To further increase participation, I would also offer the students incentives.

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Table 1

List of responses to what participants believe feelings associated with imposter syndrome are

Participant:	Fulfilled L.O. 1	Did Not Fulfill L.O. 1
Participant A:		Helpless and discouraged
Participant B:	Fear, anger, sadness. Like I don't belong. I am a fraud. Everyone knows that I am worthless. No one will listen to me because I don't deserve to be here.	
Participant C:		Failure, anxiety, depression, unmotivated, incapable, intimidation
Participant D:	I get depressed, stress out and I start comparing myself to other people and their success.	
Participant E:	I feel as if people think I am more capable and put-together than I really am. I sometimes feel as though I didn't deserve some of the great accomplishments I have had.	
Participant F:		None
Participant G:	I feel like I don't deserve to hold the position that I do as a peer mentor. I sometimes feel like I am expected to be very successful in everything I do. When I am complimented for my work, I usually don't know what to say or how to act.	
Participant H:	Lack of intelligence, incompetence, incapable, sadness, loneliness	

Table 2

List of responses to what participants believe are factors which contribute to college students feeling like an imposter

Participant:	Fulfilled L.O. 2	Did Not Fulfill L.O. 2
Participant A:		failing and isolation
Participant B:	Growing up in an uneducated and impoverished family/neighborhood	
Participant C:	No support-system, race/being a minority, being in a room with very few POC	
Participant D:	Having a new course where everyone is more advanced, or class discussions.	
Participant E:		College students may feel like an imposter if they don't focus on their own mental health.
Participant F:		Fitting into community/ need to fit in
Participant G:	Being a first generation student or coming from a low-income background.	
Participant H:	Coming into a new school or new learning environment	

Table 3

List of responses to what participants believe are methods that individuals with imposter syndrome can manage or cope with imposter feelings

Participant:	Fulfilled L.O. 3	Did Not Fulfill L.O. 2
Participant A:	talking to someone and taking a break	
Participant B:	Positive re-affirming self talk. "I have done this. I know that. I don't live there anymore. I am here. I belong here. I am the real deal. I am greatness."	
Participant C:	Counseling/having conversations, affirmations	
Participant D:	Having a growth mindset, being kind to oneself, and being open.	
Participant E:	I think reassuring oneself that they are doing great even if one may feel as if they're not helps a lot.	
Participant F:		Being aware of self and surroundings
Participant G:	An individual's syndrome can work towards managing their imposter syndrome by having open and honest conversation regarding how they are feeling.	
Participant H:	Having a conversation about the feelings and separating feelings from fact	

*Table 4**Summary of results by outcome*

Participant:	Fulfilled L.O. 1	Fulfilled L.O. 2	Fulfilled L.O. 3
Participant A:			X
Participant B:	X	X	X
Participant C:		X	X
Participant D:	X	X	X
Participant E:	X		X
Participant F:			
Participant G:	X	X	X
Participant H:	X	X	X

Appendix A

Clance Imposter Phenomenon Scale

Clance IP Scale

For each question, please circle the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

2. I can give the impression that I'm more competent than I really am.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

3. I avoid evaluations if possible and have a dread of others evaluating me.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

6. I'm afraid people important to me may find out that I'm not as capable as they think I am.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

8. I rarely do a project or task as well as I'd like to do it.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

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11. At times, I feel my success has been due to some kind of luck.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

17. I often compare my ability to those around me and think they may be more intelligent than I am.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

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Scoring the Impostor Test

The Impostor Test was developed to help individuals determine whether or not they have IP characteristics and, if so, to what extent they are suffering.

After taking the Impostor Test, add together the numbers of the responses to each statement. If the total score is 40 or less, the respondent has few Impostor characteristics; if the score is between 41 and 60, the respondent has moderate IP experiences; a score between 61 and 80 means the respondent frequently has Impostor feelings; and a score higher than 80 means the respondent often has intense IP experiences. The higher the score, the more frequently and seriously the Impostor Phenomenon interferes in a person's life.

Appendix B

PowerPoint on Imposter Syndrome

Hello, my name is

Gabriela Reyes

Before we start:

I need everyone to get a piece of paper and something to write with or open up a new window where you can input some numbers.

Instructions:

For each question, please note the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over. For this reason, I will be reading each question and giving you a few seconds to answer. Try to answer each question in the allotted time. There are 20 question total.

Time to Add up Your Score!

We will discuss what your score suggests further down this presentation



Imposter
Syndrome

What is Imposter Syndrome?

An individual's internalized feelings of phoniness accompanied with fear that someone will discover that they are not as competent as perceived



How do Individuals with Imposter Syndrome Feel?

- Unworthy of:
 - Success
 - Achievements
 - Accolades
- Feel like they have fooled others into thinking they are more intelligent than they really are
- Worried that they will be discovered as being frauds or undeserving of their status



Those With Imposter Syndrome May:

May attribute their success to:

- Luck
- Attractiveness
- Errors



Who Does Imposter Syndrome Affect?

- It can affect anyone regardless of age, gender, race, etc.
- May disproportionately affect certain groups



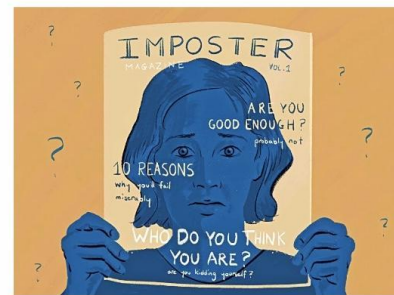
What Populations are Most Affected?

- Ethnic Minorities
 - Higher Levels Observed in African American, Asian, and Latino students
- First Generation Students
 - Especially if ethnic minorities
 - Low socioeconomic status
- Females
 - Especially those in male dominated fields (ex: Engineering, Science, and Mathematics)
- Disadvantaged Groups
 - Ex: from low income families



What are the Effects of Imposter Syndrome?

- Wellbeing affected: resulting in little sleep, being irritable, and disengaged
- Emotional suffering
- Poor mental health
- Psychological distress: anxiety, neuroticism, self-consciousness
- Depression
- Drug abuse



Direct Academic Effects:

- Students with imposter syndrome have reduced:
 - engagement
 - attendance
 - performance
- Higher intentions of dropping out from school



What Does This Mean for Students?

Students suffering with imposter syndrome may:

- reduce their professional and academic aspirations
- set goal limitations which can affect their career development



Short Video Describing Imposter Syndrome:

<https://youtu.be/ZQUxL4Im1Lo>

- Does not only affect young people
- Affects highly successful people as well



What Your Score Suggest?

The Impostor Test was developed to help individuals determine whether or not they have Imposter characteristics and, if so, to what extent.

If the total score is:

- **40 or less:** few Impostor characteristics
- **41 to 60:** moderate impostor characteristics and experiences
- **61 to 80:** frequently have Impostor feelings
- **80+:** intense impostor characteristics and experiences

The higher the score, the more frequently and seriously the Impostor Phenomenon interferes in a person's life.

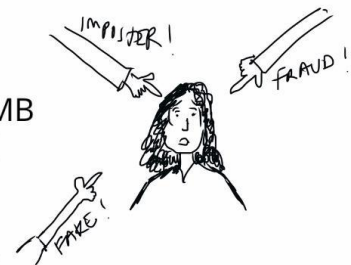
My Score

62

Suggests that I frequently have Impostor feelings

My Experiences as a Student:

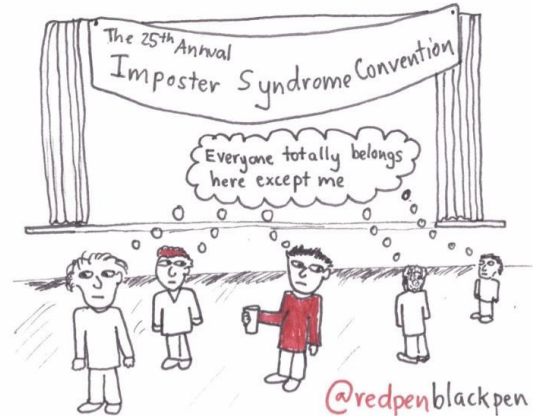
- Transfer student
- First class ever: Global Studies
- Class discussion
- First time I remember feeling like an imposter at CSUMB
- Students in the class seemed to have already grasped the content that was briefly introduced
- Elaborated using words I had never even heard
- I sat in my seat thinking I do not belong here and I am not as smart as my classmates
- Constantly feeling anxious in that class and not wanting to participate in fear of outing myself



Not Alone:

A study found that about 70% of participants have experienced one of the common feelings or symptoms of imposter syndrome including:

- Anxiety
- Perfectionism
- Self-doubt
- Fear of failure



What are Some Coping Mechanisms?

- Having open and honest conversations: normalize imposter feelings and target feelings of loneliness brought on by imposter syndrome
- Adapt a growth mindset: Which attributes academic success to hard work rather than fixed intelligence
- Learn to separate feelings from fact: Realize that just because you feel a certain way (ex: "dumb"), does not mean you are
- Be your own understanding friend: give yourself the advice you would give to a friend who is having imposter feelings



Reminder:

Please fill out the Google Forms survey provided to you which is also included in the video description.



Thank You!

Appendix C

Post Questionnaire Measuring Learning Outcomes

Imposter Syndrome Survey

Completely Anonymous Survey for CSUMB students.
 Names will only be used for participation credit.
 Data will solely be used for a senior capstone project but will remain anonymous.

This form is automatically collecting email addresses for Cal State Monterey Bay users. [Change settings](#)

Have you ever felt feelings of imposterism? *

Yes

No

Describe feelings associated with imposter syndrome *

Long answer text

Name a factor that may contribute to college students feeling like an imposter *

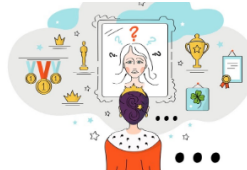
Short answer text

Describe how an individual with imposter syndrome can work towards managing or coping with imposter feelings *

Long answer text

Appendix D

Presentation from Capstone Festival




Increasing Awareness of Imposter Syndrome in College Students

Gabriela Reyes

1

What Is Imposter Syndrome?


- Imposter syndrome consists of internalized feelings of phoniness
- Accompanied with fear that someone will discover that they are not as competent as perceived



2

How are college students affected?


- Can experience negative psychological effects that may disrupt academic performance
- May continue into adulthood and hinder career aspirations
- Disproportionately affects certain populations of students



Theory

Jeffrey Arnett's Emerging Adulthood:


- Stage between adolescence and adulthood
- Consists of 5 parts:
 - age of instability
 - age of identity exploration
 - self-focused age
 - age of feeling in-between
 - age of possibilities



During Emerging Adulthood

Individuals may experience the age of:


- **Instability:** young adults are faced with uncertainty, must make important decisions, and face various life changes
- **Identity Exploration:** individuals try to figure out who they are and what path to take for their education and employment



5

Why is there a Need to Increase Awareness of Imposter Syndrome Among College Students?

- College students may be unaware of how imposter syndrome may be affecting them
- College students in emerging adulthood may already face great instability and uncertainty without the negative effects imposter syndrome may cause
- Imposter syndrome has the potential to affect the period of identity exploration

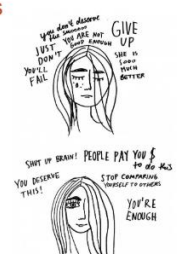


6

Learning Outcomes


By the end of my project, participants will:

- describe feelings associated with imposter syndrome.
- identify one factor which contributes to college students feeling like imposters.
- identify a way someone with imposter syndrome can manage imposter feelings.




Method

- Narrated presentation on Imposter Syndrome
- Presentation was sent to CSUMB students in the TRIO program via their school email accounts
- A post-presentation questionnaire using Google Forms was also sent out to their student emails



TRIO

Trio consists of first generations, low-income students, and students with disabilities



9

Clance IP Scale

- Determines imposter characteristics and their extent
- 20 questions
- Uses 5 point likert scale
- Used so students can identify imposter feelings

1 (not at all true) 2 (rarely) 3 (sometimes) 4 (often) 5 (very true)

10


Questions in Clance IP Scale

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.
2. I can give the impression that I'm more competent than I really am.
3. I avoid evaluations if possible and have a dread of others evaluating me.
4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

11

Narrated Presentation Included


- The definition of imposter syndrome
- Examples of imposter feelings
- What individuals with imposter syndrome may attribute success to
- Groups disproportionately affected
- The effects of imposter syndrome
- Coping mechanisms



12

TED-Ed Video

- Influential Individuals
- Commonality
- Methods combat imposter feelings
- Groups disproportionately affected



13

Testing Learning Outcome 1

L.O. 1- Participants will be able to describe feelings associated with imposter syndrome.

- Feelings tied to imposter syndrome were discussed in the presentation.
- A video further explaining imposter feelings was shown.

14

Question Included in Post-Presentation Questionnaire:

Describe feelings associated with imposter syndrome *

Long answer text

15

L.O. 1- Results

Describe feelings associated with imposter syndrome

8 responses

Helpless and discouraged

I feel like I don't deserve to hold the position that I do as a peer mentor. I sometimes feel like I am expected to be very successful in everything I do. When I am complimented for my work, I usually don't know what to say so I have to act.

I get depressed, stress out and I start comparing myself to other people and their success. ☆

Failure, anxiety, depression, unmotivated, incapable, intimidation

Lack of intelligence, incompetence, incapable, sadness, loneliness ☆

None

Fear, anger, sadness. Like I don't belong. I am a fraud. Everyone knows that I am worthless. No one will listen to me because I don't deserve to be here.

I feel as if people think I am more capable and put together than I really am. I sometimes feel as though I didn't deserve some of the great accomplishments I have had. ☆

5 out of 8 described imposter feelings that were discussed in the presentation.

16

Testing Learning Outcome 2

L.O. 2- Participants will be able to identify one factor which contributes to college students feeling like imposters.

- Factors contributing to disproportionate rates of imposter syndrome were discussed in the presentation.
- Video also discussed factors

17

Question Included in Post-Presentation Questionnaire

Name a factor that may contribute to college students feeling like an imposter *

Short answer text

18

L.O. 2- Results

Name a factor that may contribute to college students feeling like an imposter

8 responses

- feeling and isolation ☆
- Being a first generation student or coming from a low income background. ☆
- Having a new course where everyone is more advanced, or class discussions ☆
- No support system, race/being a minority, being in a room with very few POC ☆
- Coming into a new school or new learning environment ☆
- Fitting into community/ need to fit in ☆
- Growing up in an uneducated and impoverished family/neighborhood ☆
- College students may feel like an imposter if they don't focus on their own mental health.

5 out of 8 students identified factors that may contribute to students feeling like imposters.

21

Testing Learning Outcome 3

L.O. 3- Students will be able to identify a way someone with imposter syndrome can manage imposter feelings.

- Presentation discussed different coping mechanisms with examples.
- Video shown also discussed various methods to combat imposterism

22

Question Included in Post-Presentation Questionnaire

Describe how an individual with imposter syndrome can work towards managing or coping with imposter feelings *

Long answer text

21

L.O.3- Results

Describe how an individual with imposter syndrome can work towards managing or coping with imposter feelings

9 responses

- talking to someone and taking a break ☆
- An individual's syndrome can work towards managing their imposter syndrome by having open and honest conversation regarding how they are feeling ☆
- Having a growth mindset, being kind to oneself, and being open. ☆
- Counting/having conversations, affirmations ☆
- Having a conversation about the feelings and separating feelings from fact ☆
- Being aware of self and surroundings
- Positive re-affirming self talk. "I have done this. I know that. I don't live there anymore. I am here. I belong here. I am the real deal. I am greatness." ☆
- I think reassuring oneself that they are doing great even if one may feel as if they're not helps a lot. ☆

7 out of 8 students were able to identify strategies which help manage imposter feelings.

22

Summary Of Results

Participant:	Fulfilled L.O. 1	Fulfilled L.O. 2	Fulfilled L.O. 3
Participant A:			X
Participant B:	X	X	X
Participant C:		X	X
Participant D:	X	X	X
Participant E:	X		X
Participant F:			
Participant G:	X	X	X
Participant H:	X	X	X



Analyzing Results

- Out of 299 students in TRIO only 8 students completed the post-presentation questionnaire
- One student got every question wrong/did not provide answers for all questions asked
- Four students met every learning outcome



Discussion

Did it work? In short, yes. 7 out of 8 students were able to identify methods to manage imposter feelings. Further, at least half of students were able to describe feelings associated with imposter syndrome and were able to identify factors that may disproportionately affect certain groups. Therefore all outcomes were at least partially met.

What would I do differently?

- Hold an in person or live zoom presentation to increase participation and dialogue
- Offer incentives to also increase participation

Thank You!

Questions?



Gabriela Reyes