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SOCIALISM VERSUS CAPITALISM: ACHIEVING A NEW BALANCE BETWEEN COMPETING STAKEHOLDERS

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ABSTRACT

Globalization, climate change, and the Covid-19 pandemic are leading countries to question their economic-political options. In the United States, single-payer healthcare, free public university tuition and other wealth redistribution plans are shunned as socialism that can lead the U.S. down a path of decline. Clearly, such attitudes are a relic of the cold war days when the communist countries' choice of "socialism" as a name for their systems had created an unfortunate perception regarding the nature of socialism. This erroneous perception allows financial capital holders to prevent discussion of the benefits of socialism in the face of the current global realities. To move forward, we suggest a new typology of economic-political systems, where we propose that economic-political systems can be categorized around two dimensions. The first dimension is a construct that we identify as the level of definition of property rights that is observed in the system, ranging from fully defined private ownership of property to no private ownership of property. The second dimension is a compound construct which looks at the tax rate in the economic-political system together with quality of governance. This dimension ranges from high taxation combined with good governance, to high taxation combined with bad governance.

Keywords: Capitalism, Socialism, Political Economy, Property Rights Economics

INTRODUCTION

The global economy has been going through turbulent times since the financial crisis of 2007-2008, with adverse developments escalating steadily and a climax being reached with a global pandemic gripping the world at the beginning of 2020. These adverse developments are notable in their wide reach, ranging from persistent poverty and armed conflict gripping many developing countries (e.g., Libya, Syria, and Afghanistan), to disturbing levels of income inequality and social unrest in even the most prosperous regions of the world (e.g., the United States). In fact, the circumstances facing the worlds' nations and regions are so dire that many researchers predict the end of the neoliberal global world order that has created much wealth for many (though not all) through global free trade, and

efficient global supply chains fueled by “capitalism” and “free markets” (e.g., Saad-Filho, 2020).

Climate change and depletion and degradation of natural resources are another set of persistent problems even though there is no consensus on the degree of the calamity or who should pay to remedy it. Nevertheless, many regions of the world continue to experience adverse weather challenges, declining biodiversity, and adverse health effects from pollution (Benevolenza and DeRigne, 2019). To complicate matters further, the dominant globalization related economic paradigm is to increase the level of global economic activity, through increased efficiency and productivity. And through utilization of this process, to alleviate poverty in developing regions of the world while creating more wealth for shareholders of multinational corporations. However, given the current wealth allocation ratios which favor capital versus labor, the amount of economic activity needed to lift the very poor out of poverty is considerably beyond the limit that natural resources of the planet can sustain (e.g., Magnin, 2018).

Developed countries do benefit from the lower consumer prices that are achievable as a result of productivity gains, and they do reap the benefits of low-cost production of products and services, but they face structural unemployment in some of their regions, which experience de-industrialization (e.g., Costello and Costello, 2019; Kletzer, 2005). Another development that reduces the standards of living in developed countries is that many remaining jobs in the newly de-industrializing countries are service jobs that do not pay as well as the jobs of previous times (Denning, 2019). The citizens that are facing a reduction in their standards of living are further hit by a loss of benefits, as the service jobs that they now have usually come with much reduced benefits. Citizens now find themselves facing difficult decisions regarding how to pay for health care expenses, saving for retirement, and putting their children through college. Many work more than one job, putting off their healthcare needs, and their children graduate from college with considerable debt burdens. Many demand single payer health care, tuition-free college, and a transition to a greener economy (e.g., Brownstein, 2019). However, at least in the U.S., politicians that promise such outcomes are demonized as socialists. Socialism and capitalism are seen as two opposing ends of a continuum of economic-political systems. Finally, Americans are warned that if they became socialists, they would end up living in a country, which would become similar to Venezuela even though Venezuela’s problems do not stem from the country’s ambitions to provide social services to its citizens, but rather from the deficiencies in its governance system (e.g., Qiu, 2018).

In this paper, we reject the above-mentioned discourse because it assumes that any efforts at “socialism” will lead to disaster. But this way of thinking is a throwback to the cold war days. During the cold war days communist countries called themselves socialist; and a lack of property rights together with totalitarian governance mechanisms, doomed those communist countries to bankruptcy; and

continues to create similar doom for countries that follow similar patterns (e.g., Venezuela). Clearly, countries that are bankrupt and countries that can't provide economic value can't be socialist, as socialism requires economic value to be created and then distributed equitably (Chomsky, 1986). The historical artifact where communist countries "stole" the name of socialism despite being unable to provide reasonable social benefits, should not be the basis of discussion about whether a society similar to the U.S. should have a single-payer health care system, or should provide free tuition to its high school graduates, or provide pension benefits to its elderly.

We also propose that a better understanding of the interaction of political and economic constructs is needed to frame societal economic choices. To that end, we propose that capitalism and socialism need to be better defined; and it must be understood that they are not two polar ends of the same continuum. Any economic-political system (it is impossible to separate the two) operates on two dimensions (i.e., axes). First dimension (x-axis) is a construct that we identify as the level of definition of property rights that is observed in the system, ranging from fully defined private ownership of property to no private ownership of property (i.e., communism). Communism does not allow private property and the ability to seek profit to maximize returns on private property, therefore, it can't use the market mechanism to allocate resources. Thus, the need for command resource allocation decisions. At the other end of the continuum, where private property rights are absolute, market mechanisms can be used as long as the industries involved do not naturally fail without regulation.

The second dimension (y-axis) is a compound construct which looks at the tax rate in the economic-political system together with the quality of governance. This dimension ranges from high taxation combined with good governance, to high taxation combined with bad governance, with low taxation in the middle. All the stakeholders to the global economy operate in the primordial soup of economic-political systems that exists around the above-mentioned dimensions.

Based on this framework, we build our typology of economic-political systems. We call the northeast quadrant of our typology the "Good Governance Private Property Rights (GGPPR)" quadrant. Here, we find countries that have well defined private property rights, with good governance and a variety of tax rates. We call the southeast quadrant of our typology the "Bad Governance Private Property Rights (BGPPR)" quadrant. Here, we find countries that have well defined property rights, with bad governance and a variety of tax rates. The southwest quadrant of our typology is the "Bad Governance Communal Property Rights (BGCPR)" quadrant, where we find countries that have less well-defined property rights, with bad governance and a variety of tax rates. Finally, the northwest quadrant of our typology is the "Good Governance Communal Property Rights (GGCPR)" quadrant, where we find countries that have less well-defined property rights, with good governance and a variety of tax rates. See Figure 1 for

a schematic demonstration of our framework. (The countries that are mentioned in the quadrants are there for demonstrative reasons based on anecdotal observations. They are not plotted on the axis following a mathematical or statistical analysis yet. Much empirical work needs to be done to assign countries a place on the axes and some of the mechanics of that work is discussed in the future research section of this paper. For example, Canada is colloquially referred to as a socialist country, however, it is oddly considered more economically free than the U.S., by the Heritage Foundation (Heritage.org, 2020)).

When we talk about capitalism, we mean any region of our typology that favors the capital holder. Likewise, socialism can be observed in any region of the same ecosystem just favoring a different set of stakeholders. This reality means that vibrant capitalism can be found in the so-called “Communist” China, as well as the U.S. Whereas, socialism can be found in countries ranging from Sweden to Canada. Finally, in some regions of the “primordial soup” of economic-political options, we see governance failure, or totalitarian tendencies, maliciously labeled as “socialism” to dissuade populations from favoring other stakeholders versus capital holders. In the following sections of our paper, we will review the literature that grounds our proposed typology of economic-political systems that countries operate under. We will also further explain differences between socialism and capitalism.

LITERATURE REVIEW

The first step to take in explaining the typology of economic-political systems is defining the scope of our proposed typology. The political-economic systems as a whole cover all the economic actors that interact to form the global economy. It is important to understand that the outcomes in the global economy, as a whole, are game theoretic equilibriums that are reached as the stakeholders in the global economy make economic decisions (Costello and Costello, 2019).

The main stakeholders in the global economy are public policy makers (elected or not elected), citizens in developed and developing countries (this also includes small businesses lacking multinational scope), and multinational corporations that operate across countries and regions. The equilibriums reached (across all quadrants of the political-economic typology) reflect the payoffs of the stakeholders participating in the economic games. However, not all stakeholders play with access to accurate payoffs. Specifically, public policy makers and multinational corporations utilize propaganda tools (e.g., those suggested by the propaganda literature) to create information asymmetry to confuse the citizens regarding their accurate payoffs. As a result, citizens can be led to take actions for sustained periods of time until the true payoffs of their actions are revealed over time. An example of this type of payoff manipulation can be seen in developed regions, where citizens voted to allow their multinational corporations unfettered access to free trade for sustained periods of time, despite the de-industrialization

related structural problems that this free trade stance caused. Ultimately, the U.S. election of President Donald Trump and the Brexit vote which allowed the U.K. to break from the European Union can be seen as an end to that bout of developed country citizens acting on manipulated payoffs where they were supporting actions by public policy makers and multinational corporations because they mistakenly believed that “free” trade would create future property value for all. Where in reality, it created immediate job displacements and quality reductions in goods and services provided (Costello and Costello, 2019).

Having explained the general context of our typology, next we want to start explaining the x-axis, which anchors our framework. This axis is the one that identifies the level of definition of property rights in an economy. The definition of property rights in an economy can range from complete, unfettered private property rights (the limit to the “east” side of the x-axis) to a complete lack of private property rights (the limit to the “west” side of the x-axis). Unfettered private property rights would mean that private entities can lay claim to all dimensions of their physical and intellectual property and can exclude non-owners of the said property from enjoying the benefits of that ownership. However, private entities can still suffer from the competitive effects of the actions of other private entities (e.g., Costello and Costello, 2005; Barzel, 1997; Libecap, 1989; Alchian, 1965). Of course, whether a property right can be exercised over a physical or intellectual property may depend on whether metering and policing of that property is possible, but in the eastern limit of complete property rights we are assuming that the government allows complete property rights if metering and policing is possible. In this region of the typology free markets can operate since private entities can own the means of production and the fruits of those means of production. They can subsequently engage in transactions, also, the price mechanism through supply and demand allocates societal resources as efficiently as possible from an economic perspective. So, our framework highlights that the greater private property rights region, is a region where we are likely to see a great deal of economic efficiency. However, we need to caution the reader that there may be at least two circumstances where adverse outcomes from a societal perspective may be observed.

First, not all markets can function as “free markets” regardless of government policy; and even with private ownership, some markets will fail due to their nature; and cause great harm to efficient use of resources as they fail (e.g., Todorova, 2014). A good example of this situation is the industry we can broadly define as the provision of health care. It is an industry that routinely fails, due to the numerous idiosyncratic characteristics of the industry that include severe information asymmetry (e.g., it is very hard to tell the quality of the service different professionals and institutions will provide); the inability to transact freely (e.g., it is hard to shop for good service as you are having a heart attack); and the fact that it is hard to price the services provided by this industry since the cost of

providing the service will differ from individual to individual further stressing the market settlement (e.g., Roemer, 1982).

Second, when private entities have complete property rights especially over intellectual property rights, very high social costs may get created when those who can't afford a particular intellectual property are excluded (Costello and Costello, 2005). Perhaps a good example is a groundbreaking or necessary medication or a vaccine that can help with a dangerous illness. If a pharmaceutical company finds a cure for cancer, but excludes those that cannot pay, society may be willing to confiscate that cure to make it available to all that may need it despite the fact that such an act may create a chilling effect on the future investment in research and development in the field (Costello and Costello, 2005).

So, this eastern half of the x-axis (where we see a dominance of private property rights) is the region that enjoys the resource allocation efficiency of well-functioning markets. But even in these areas, we can see resource misallocation due to social costs or market failure. Now when we look at the limit of our x-axis on the "western" end of the continuum, we see a complete lack of private property rights, similar to what was observed in the U.S.S.R. during the cold war period, where the government owned all means of production (e.g., Kucherov, 1962). Apart from the obvious demoralizing aspects of that situation, property rights economics suggest that a lack of private property rights prevents the society, which is lacking private ownership of property, from using the market mechanism to allocate resources efficiently. Instead of having free markets take care of resource allocation effortlessly (especially in markets that do not structurally fail), the economists working during the Soviet era had to figure out what to produce and where to send what is produced by an administrative process (hence the type of economic system was called command economy, e.g., Carrington, 1989). There were stories of too many swimsuits going to Siberia in the dead of winter, while citizens had a hard time finding cold weather necessities. Such an effort of command production for a large economy would be comparable to trying to solve an enormously complex optimization problem by hand. And to complicate the matters more, many such command economies were not good at accounting methods; and Soviet economists were not always aware of true input costs as they planned their production and allocation schemes, which further distorted their resource allocation efforts and thus led their countries to economic inefficiency and eventual ruin (e.g., Winiecki, 1990).

Other issues that doomed command economies that lacked private property rights ranged from the prevalence of common pool losses that strike common pool resources, to having a need to curb a natural tendency of individuals to seek self-interest (sometimes with guile) in an economic environment where every participant lacked property rights. The common pool resources are those that others cannot be excluded from; and by definition at the "west" end of our continuum no one is excluded. Therefore, there was a great deal of pressure to

overuse communal resources and little desire to provide their upkeep (e.g., Barzel, 1997; Libecap, 1989).

The need to curb individual self-interest-seeking coupled with the need to use command production and allocation systems meant that political aspects of such a system had to be totalitarian (as opposed to consensus-based) in nature. Usually, this situation meant a “Communist” party ruling these countries that lacked private property rights to make sure the citizenry “cooperated” (e.g., Rakitskii, 1991). Once it was understood that the inefficiency of having a complete lack of private economic property rights would lead to economic ruin for the region adopting such a policy, the People’s Republic of China, started giving property rights to entrepreneurs, etc., thus creating a system where market mechanisms could be used to reduce the inefficiencies that exist in a command scheme for production and allocation. So, for the sake of precision, China moved from a communist system where private ownership did not exist to a place in the continuum where a considerable degree of private property rights do exist allowing for market mechanisms to work, specifically in industries that do not fail or those that are not deemed strategic by the ruling party (e.g., Weede, 2003). So, although the People’s Republic of China now became something other than communist (i.e., where property is owned communally), the ruling party kept its name and its ways of dictating people’s political choices while giving the citizenry some property rights especially in non-failing, non-strategic markets so that market mechanisms can be used to alleviate the difficulty of the “optimization problem” that faces any economy (e.g., Yu, 2009).

Surprisingly, many still call China “communist” following the wishes of the authoritarian Chinese government; and are somewhat confused about what to make of China. It is also noteworthy that the Chinese Communist Party, calls itself “communist” as a means of appeasing the many that toil in sweatshops and otherwise carry the brunt of the Chinese economy that exploits its workers and the environment. Chinese rulers promise their downtrodden masses that the Chinese economy is at the beginning of the path to “communism”, and they will do more for those suffering now at some future point. In addition, the totalitarian tendencies in a fiercely capitalistic economy, where the governance style can almost be considered fascism is scarier for Western scholars to ponder as can be seen in the denial of Chinese fascism by Kai (2015). Thus, many just oblige the Chinese governing elite’s characterization of themselves as “communist” (e.g., Cable, 2020); instead of facing the reality. However, in this paper, we pose boldly that China has nothing to do with communism which means a lack of private property rights and it is time to admit this fact. However, China is authoritarian in the sense that a few determine who gets what property rights and what parts of the economy are operating under market mechanisms versus command mechanisms. China’s ability to dictate winners and losers, and making strategic investment decisions, protect their national interests and are not efforts to achieve communist utopia.

Furthermore, both the Chinese government now, and the ruling party in power during the U.S.S.R. reign, would characterize themselves as socialist and this claim is one that should be looked at critically. As we will explain shortly, socialism can exist in any quadrant in our typology, but it certainly was not paramount in the U.S.S.R., and it is not so in present-day China. The reason for our bold assertion is that despite the cold war meaning of socialism as something that we should have been observing in the communist countries where private property rights did not exist, true socialism is a condition where a region produces and allocates goods and services to maximize the benefit to a variety of stakeholders in the society. Socialism requires a degree of welfare that is shared, and a level of dignity afforded to those that live in a region. Socialism also requires care for individuals that make up a region and neither in the U.S.S.R. nor in modern day China do we see this. The U.S.S.R. did not generate enough wealth to be socialist, and that situation was due to a complete lack of private property rights (Chomsky, 1986). China did not and still does not have the governance mechanism to be socialist, although the government can point to large scale projects such as high-speed train systems around the vast country as a sign of their collectivism and socialism. However, if you are an elderly, poor, or disabled person in China who lacks a family support structure, you cannot count on the Chinese governmental structures to take care of you, which would be unheard of in a truly socialist country like Sweden or Canada. The extent of the lack of a social safety network has resulted in the Chinese economy being held back by the low consumption rates of Chinese citizens who try to save as much money as they can so that they can weather old age, illness, etc. since they cannot rely on their government to provide any services (Lane & St-Maurice, 2006).

By what should be the de facto definition of socialism, it may be seen that even the U.S. can be construed as more socialist than China, which may not be such a bad thing from a social welfare perspective. However, due to the scars of the cold war during which the science of economics was used as a tool to fight communism, the concept of “socialism” got a warped definition which does not help us move our discussions of political-economic systems forward. In fact, it truly hinders our ability to move forward and also to see what different configurations along our typology may mean for economic efficiency, growth, and improved social welfare and justice (which is an issue of utmost importance in the United States).

To move our understanding further, we need to explore the y-axis of our typology in as much detail. The y-axis of our typology ranges from high taxes and good governance in the positive regions, to high taxes and bad governance in the negative regions (with low taxes in the middle). So, in both the northern and the southern ends of the y-axis we see high taxes, but in the northern regions we see functional governance structures, and in the southern regions of our typology we see dysfunctional governance structures. We borrow this idea about functional versus dysfunctional governance structures from institutional economics à la Douglas North (e.g., North, 1991). Institutional economists suggest that economic

and socio-cultural institutions observed in a region will impact economic growth and living standards in a region. Following that pattern, we posit that in functional governance regions of our typology (i.e., northeastern, and northwestern quadrants), we observe good governance. This good governance exists in the sense that functional governance structures allow for positive social change, positive economic growth, low rates of corruption, and pluralistic democracy, as well as minority rights. In the southeastern and southwestern quadrants on the other hand, we see dysfunctional governance structures that create stagnation, authoritarian political systems, corruption, lower economic growth (or low standards of living in the case of relatively high growth China that is plagued by worker well-being violations, and environmental degradation), and a lack of minority rights.

Having explained the x and y axes of our typology we can now state with more precision that constructs such as capitalism and socialism can exist in any quadrant except in some limited fringe conditions (i.e., capitalism would not be possible without any private property rights). Capitalism is the world view that favors the interests of capital owners who can range from those entities that have access to monetary capital to individuals with extremely valuable human capital. Socialism, on the other hand, is the world view that favors the interests of the society (thus the phrase “social” in socialism). This socialism is distinct from the “cold war” definition of socialism, which defined socialism as communism. It also does not connote a governance limitation. Socialism is a favoring of a variety of stakeholders that exist in the governance region. Also, socialism defined in this manner does not mean a system where individuals are sacrificed for the society, but rather a system where the society is run in a way that is favorable to increasing the society’s standards of living as a whole. In this version of socialism, the wealth that is created by the society is used for the society without specifically favoring the capital holder. This does not mean the individual in the society cannot be served or the capital holder be reasonably rewarded. Furthermore, socialism can be finetuned to favor different types of stakeholders that make up a society. For example, if a region in a quadrant decided that the most important stakeholder was the environment, they can become environmentalists as opposed to another type of a socialist or a capitalist region. Yet, another region may choose to focus on animal welfare becoming animalist (pun intended), and clearly other regions could gear up to favor workers (e.g., the U.S.S.R. envisioning themselves to be a workers’ paradise even though they lacked the property rights regime and governance ability to actually be such a paradise).

CONCLUSION

The authors of this paper grew up during the cold war days and were able to experience the economic developments that gave rise to the end of the cold war firsthand. They also travel back and forth between two countries, one developed and one developing, as well as follow political and economic developments through first-hand sources. Thus, they have witnessed the impact of globalization

in two different ecosystems on a yearly, if not daily, basis. Increasing globalization over the years meant that multinational corporations were able to maximize their value by decreasing their costs through exploiting labor cost differences, as well as differences in environmental standards; and as a result, if the developed regions want to become more competitive, they will have to accept a lowering of their workers' living standard, as well as reduced environmental protections and other such societal benefits (e.g., D'Aveni, 2012). In other words, global corporations have been able to take advantage of the benefits of lax regulations in developing regions (e.g., lax environmental and safety regulations), lower labor safety standards, and lower labor costs to further reduce their costs. Furthermore, while reducing their costs, they were able to maximize revenue by selling their products and services in developed regions, where the economies were seen as consumption-led powerhouses. As these developments were taking place, many developed regions started running high trade deficits, while they were also being subjected to deindustrialization, and their intellectual property rights were under threat from developing region governments and corporations. The population in developed regions started to feel the burdens of living in a service-based economy, as the new jobs promised to them to replace the lost manufacturing jobs did not happen (e.g., Engardio, 2009; Yilmaz, 2009). All these developments started to fuel populist political movements such as Brexit, which gave us the exit of the UK from the European Union, and also the election of President Trump by the United States of America in 2016 (e.g., Dodo, 2016).

In the turmoil created by challenges posed by globalization, one of the key developments was that developed-country citizens were pressured by the erosion of standards of living that they were accustomed to. As a result, there were demands for governments to provide more social services. For example, in the U.S. there was a lot of debate regarding whether health care was a human right and whether the government should be providing that health care to all of its citizens. The healthcare demands were accompanied by many hoping to allow U.S. students to get a tuition-free higher education in public universities. Such discussions to provide single-payer healthcare, or tuition-free education are currently being blocked in the U.S. by telling the population that such benefits would make the United States a socialist country. And socialism is framed in a way to mean that it is a sure path to political and economic disaster such as what is seen in North Korea and Venezuela. In this paper, we try to put an end to such simplistic and fruitless discussion by pointing out that socialism and capitalism are constructs that determine which stakeholders will be favored over the others in a given political economic system. Economic systems all work in the same predictable patterns regardless of which stakeholder is preferred. Political economic systems differ from each other in terms of the definition of private property rights, as well as tax rates and governance quality. These are crucial constructs to understand.

During the cold war, communist countries called themselves socialist, but they were not generating enough economic value to be socialist. Furthermore, they were

not governed well, creating great pain and suffering. It completely misses the point to call demands in the U.S. to have free healthcare and tuition as a wish to become a socialist country like North Korea, Venezuela, or the U.S.S.R.

Some countries which are governed well, and which have a reasonable degree of private property rights-and thus functioning markets-can have relatively high tax rates and socialistic tendencies while still enjoying free markets which are assumed to be capitalistic. Finally, countries that favor capital holders (e.g., the U.S. and China) can range from relatively good governance (e.g., freedom of speech, personal liberties, etc.) to relatively bad governance (e.g., no freedom of speech, no personal liberties, etc.) and may even call themselves communist. In fact, if one were to compare the fortunes of an elderly, disabled person with no family to take care of them living in the U.S. versus China one would observe that the U.S. may be more socially friendly to the poor, elderly, disabled person than “communist” China would be. In an interesting twist, even when China promises universal healthcare, and sounds like they are socialist for providing it, there is a catch. In most cases, Chinese citizens need to provide cash for the health care they seek, and then the universal health care system might pay the citizen back. However, a poor citizen already down on her/his luck can scarcely pay for a service upfront, thus effectively being locked out of the healthcare system.

It is thus very important to understand that if constructs, such as those we are discussing in this paper, are defined well, then countries may see that they may have more options in optimizing their political-economic systems creating better standards of living for their citizens and over the long run more peace and prosperity at a global level. Given that consumption-led growth of the global economy (where the likes of China produce and the likes of the U.S. consume) already has created so much misery and is creating consumption rates that are not ecologically sustainable, we see that optimization of political-economic systems may be crucial to the survival of humankind.

FUTURE RESEARCH

The next step in this stream of research is to develop a measure of the position of countries on the two axes that we have identified. Specifically, we need to figure out where countries are located in regard to the level of definition of property rights in their economic-political systems. The authors researched a wider variety of publications to see if such a measure already exists, but they were not able to pinpoint any useful research. In fact, many existing classifications such as the Heritage Foundation’s rankings of countries in terms of their “economic freedom” is quite misleading and unhelpful (Heritage.org, 2020). For example, Canada is ranked 9th with a score of 78.2, while the U.S. is ranked 17 with a score of 76.6. However, due to its provision of universal healthcare, wider range of higher education subsidies, and good worker protections, Canada is clearly an economy where there exist more communal property rights, despite the law allowing for

some private property rights. So, in our research, Canada would be on the west side of the x-axis, whereas the U.S. would be on the east side of the said axis. Given such discrepancies, our first step in continuing this research will be to devise a way to measure countries on the continuum of their property rights regime that better reflects how much communal influence exists in a given country. Once we accomplish this objective, we will be able to push this research forward, and we will also be able to shed some light to the currently bitter and fruitless debate regarding whether a country would suddenly turn communist and collapse if it gives its citizens access to universal healthcare.

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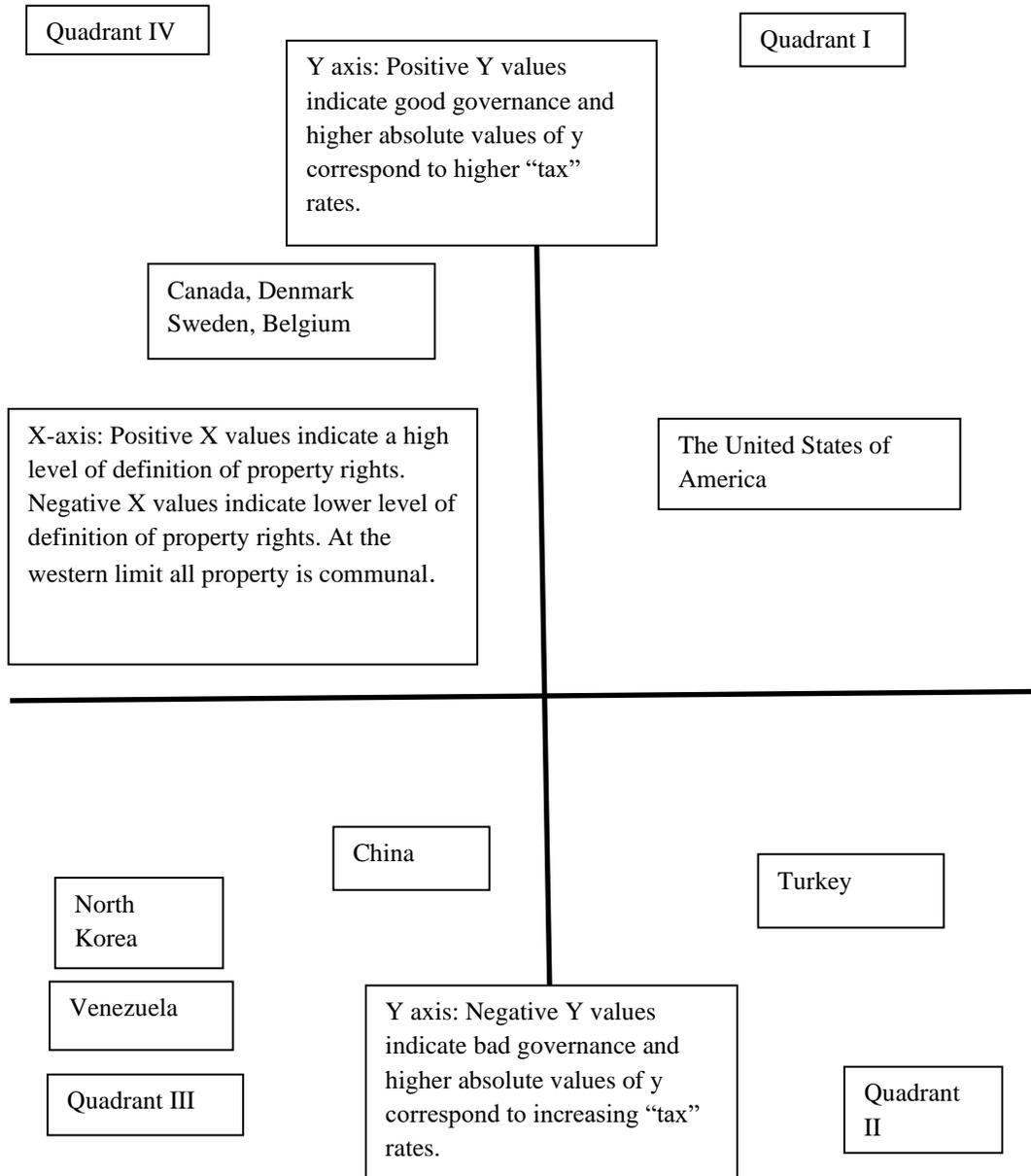
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Figure 1

Typology of Economic Systems

The locations of the countries are not precise but chosen for demonstration purposes. Future research is needed for more precise determination of country locations. See future research related discussion for explanation.



DOES COMPARATIVE OR NON-COMPARATIVE ADVERTISING RESULT IN MORE FAVORABLE OUTCOMES? THE CASE OF NEW U.S. ICONIC BRAND EXTENSIONS IN GERMANY

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ABSTRACT

Existing research has extensively examined antecedents and consequences of brand extension success. It also has recognized that advertising constitutes an important brand building tool. However, only few studies have identified advertising strategies that increase the likelihood of success of a new brand extension. The objective of this research is to contribute to the existing literature by examining how to best promote new extensions of U.S. brand icons in a different culture, Germany. Specifically, we hypothesized that Germans will evaluate an indirect positive national myth comparative advertising format (H1) more favorable than a non-comparative advertising format (H1) and a direct national brand icon comparative advertising format (H3), but that they will evaluate a direct national brand icon comparative advertising format less favorable than a non-comparative advertising format (H2). We also hypothesize that the relationship between advertising type format and US brand icon extension success is mediated by perceived similarity (H4) and moderated by country belief (H5). The results show that an indirect comparative advertising claim highlighting a country brand image (e.g., German tradition of engineering excellence) is the most effective advertising format for a new U.S. brand icon extension. The results are driven by people with a positive country belief about Germany. The results further show that perceived similarity between the parent brand and the new U.S. brand icon extension mediates the relationship between advertising format and U.S. brand icon extension success. Managerial implications along with future research opportunities are discussed.

Key Words: Comparative Advertising, Brand Extensions, Iconic Brands, Global Brands, International Marketing, Germany

INTRODUCTION

The objective of this research is to identify the best way to promote a new U.S. brand icon extension in Germany. Brand extensions are among the most frequently

employed marketing strategies (Ahluwalia 2008; Völckner and Sattler 2006; Wang and Liu 2020). Brand extensions are brands that are extended into new product categories by their parent companies. For example, Starbucks extended its coffee brand into the ice cream product category, the coffee liquor product category, and the chocolate product category. Similarly, Google continues to extend its brand into such diverse product categories as self-driving cars (Google Driverless Car), home delivery services (Google Express), and translation services (Google Translate).

Existing research has extensively examined different antecedents and consequences of brand extension success. It also has recognized that advertising constitutes an important brand building tool (Lemon and Nowlis 2002; Wang, Zhang, and Ouyang 2009). However, few studies have identified advertising strategies that increase the likelihood of success of a new brand extension (Bridges, Keller, and Sood 2000; Lane 2000; Martinez, Montaner, and Pina 2009). In fact, the effects of non-comparative advertising and comparative advertising on brand extension success are unknown. Non-comparative advertising does not compare the advertised brand extension to a competing brand, whereas comparative advertising does so either explicitly (i.e., direct comparative advertising) or implicitly (i.e., indirect comparative advertising).

To address the existing gap in the current brand extension research stream, the present research examines how to best promote a new U.S. brand icon (Ford Mustang) extension (Ford Mustang Motorcycles). Specifically, it investigates the effects of a non-comparative advertising claim, indirect comparative advertising claim, and direct comparative advertising claim on brand extension success. Examining U.S. brand icon extensions is important as some of the previously identified antecedents for brand extension success might not hold true for iconic U.S. brands for which strong associations about the brand (e.g., Ford Mustang) *and* about the country (e.g., USA) exist in consumers' minds.

LITERATURE REVIEW

Brand extensions are typically less risky than new brand introductions (Meyers-Levy, Louie, & Curren, 1994). Furthermore, brand extensions have a positive impact on advertising efficiency (Smith, 1992), market share (Smith & Park, 1992), and stock market return (Lane & Jacobson, 1995). It is not surprising, therefore, that brand extensions are one of the most frequently employed and most profitable marketing strategies (Völckner & Sattler, 2006). Prior research has identified antecedent and moderating variables that affect the evaluation of brand extensions (DelVecchio & Smith, 2005; Hem, Chernatony, & Iversen, 2003; Völckner & Sattler, 2006). Perceived fit between parent brand and extension appears to be a key determinant of brand extension success (Aaker & Keller, 1990; Völckner & Sattler, 2006; Yorkston, Nunes, & Matta, 2010). When perceived fit is high, knowledge and affect associated with the parent brand are more easily transferred to the extension and more positive evaluations result (Martin & Stewart, 2001; Sood & Drèze, 2006). Perceived quality of the parent brand is another important

contributor to consumers' evaluations of brand extensions (Meyvis, Goldsmith, & Dhar, 2012). When a high-quality parent extends into a similar category, the extension is evaluated more favorably (Aaker & Keller, 1990). Thus, brand quality serves as another diagnostic cue for consumer evaluations of new brand extensions (Oakley et al., 2008). Given this, perceived fit, or similarity, and perceived quality of the parent brand are important diagnostic cues for consumer evaluations of new brand extensions. This seems to be particularly the case when a U.S. brand icon (e.g., Ford Mustang) extends into a new product category (e.g., Ford Mustang Motorcycles) as U.S. brand icons typically show strong brand and country associations (Völckner & Sattler, 2006).

Firms also benefit from effective promotion strategies that increase positive consumer evaluations (Lemon & Nowlis, 2002). For example, they can employ advertising that highlights the brand extension's salient product attributes without reference to competing brands (Miniard et al., 2006). In contrast, firms can use comparative advertising to directly or indirectly contrast the extension with the competition (Nye, Roth, & Shimp, 2008; Polyorat & Alden, 2005). Studies have shown that comparative advertising is used frequently (Thompson & Hamilton, 2006) and that its use is expected to grow internationally over the next several years (Nye et al., 2008). Prior research has also identified several boundary conditions of comparative advertising effectiveness (Grewal et al., 1997; Nye et al., 2008; Thompson & Hamilton, 2006; Yagci, Biswas, & Dutta, 2009). For example, Grewal et al.'s (1997, p. 12) meta-analysis indicates that comparative advertising is "most effective in enhancing the sponsored brand's attitude when the sponsor is new to the category and the comparison brand is established in the market." However, researchers have yet to examine whether these findings hold for newly introduced brand extensions of U.S. brand icons.

HYPOTHESES

Because of multiple overlaps between the parent and the extension, high fit brand extensions are usually assimilated without much difficulty into pre-existing brand schemas (Martin & Stewart, 2001; Sood & Drèze, 2006). As such, one would expect advertising theory that applies to parent brands to hold for high fit extensions. Prior research has found that comparative advertising generates more attention, deeper levels of processing, and more favorable evaluations than non-comparative advertising (Grewal et al., 1997).

In the case of comparative advertising, the advertising claims can be direct or indirect. The current research examines a direct comparison advertising claim in that the new brand extension of a U.S. brand icon is being compared to another existing (inter)national brand icon (e.g., BMW motorcycles). Further, the current research examines an indirect comparison claim in that the new brand extension of a U.S. brand icon is being compared to a positive national myth (e.g., national engineering excellence country image for Germany). Both advertising claim types have in common that they are subtler than using superiority claims in the comparison advertising format (Nye, Roth, & Shimp, 2008). This might be a

better-suited format when a U.S. brand icon is introduced in countries where comparative advertising – while allowed – is not common, as is the case in Germany.

As the context for this study is Germany, indirect comparison advertising claims highlighting a country image (e.g., national engineering excellence country image for Germany) are subtler than a subtle direct comparison highlighting another national brand icon (e.g., BMW Motorcycle), it is likely that an indirect national myth comparative advertising format is more successful in promoting a new extension of a U.S. brand icon than a direct national brand icon comparative advertising format and a non-comparative advertising format. Existing research supports the notion that indirect comparative advertising is more effective than direct comparative advertising (Grewal et al., 1997; Nye, Roth, & Shimp, 2008). This is even more likely given that a direct comparative advertisement might be perceived as inappropriate in cultures with low exposure to comparative advertising (Polyorat & Alden, 2005). Therefore, we put forward the following hypotheses (H) when promoting a new extension of a U.S. brand icon in Germany:

- H 1:** An indirect positive national myth comparative advertising format is more successful than a non-comparative advertising format.
- H 2:** A direct national brand icon comparative advertising format is less successful than a non-comparative advertising format.
- H 3:** An indirect positive national myth comparative advertising format is more successful than a direct national brand icon comparative advertising format.

Previous research has demonstrated that perceived fit, or similarity, significantly affects brand extension success (Völckner & Sattler, 2006). For example, Buil et al. (2009) found that consumers evaluated high fit brand extensions more favorable than low fit brand extensions. The authors further found less negative feedback effects of extensions on the parent brand equity. The extensive brand extension literature supports the importance of fit (see Czellar, 2003; Grime et al., 2002; Völckner & Sattler, 2006). High-fit brand extensions help a new product gain credibility among consumers (Aaker and Keller, 1990; Buil et al., 2009). Further, a brand extension with a good fit may reinforce parent brand equity dimensions such as brand image (Buil et al., 2009; Zimmer and Bhat, 2004).

In line with existing research, therefore, we expect that perceived similarity mediates the relationship between advertising type format and U.S. brand icon extension success such that the effectiveness of the advertising format depends in part on the perceived similarity of the parent brand to the U.S. brand icon extension. More favorable evaluations can be expected when perceived similarity is high. Therefore, we also hypothesize the following when promoting a new extension of a U.S. brand icon in Germany:

- H 4:** The relationship between advertising type format (i.e., no comparison, indirect comparison, direct comparison) and U.S. brand icon extension success is mediated by perceived similarity.

Finally, research shows that cultural differences affect brand positioning (Roth, 1995) and brand choice (Erdem et al., 2006). As such, consumer evaluations of brand extensions are likely to differ depending on the culture in which they are promoted (Buil et al, 2009). Research has also shown that cultural differences affect consumers' response to advertising (Buil et al., 2009; Orth et al., 2007; Waller et al., 2005).

Most importantly, cross-cultural research has identified country belief as an important moderator (Polyorat and Alden, 2005). Akram et al. (2011) for example found that consumer ethnocentrism, as a proxy for country belief, moderates the relationship between perceived brand globalness and perceived brand quality such that weaker consumer ethnocentrism resulted in stronger relationships. Shimp and Sharma's (1987) research suggests further that consumer ethnocentrism affects general attitudes toward foreign products. In Juric and Worsley's (1998) work, consumer ethnocentrism explained a significant proportion of consumers' purchasing behavior.

We similarly expect that members of a culture who think highly of their country do not want their country's brand icons to be attacked by comparative advertising claims. Thus, it is likely that people's country belief moderates the relationship between advertising type format and brand icon extension success. Consequently, our final hypothesis when promoting a new extension of a U.S. brand icon in Germany reads as follows:

- H 5:** The relationship between advertising type format (i.e., no comparison, indirect comparison, direct comparison) and brand icon extension success is moderated by country belief, such that an indirect advertising comparison condition of a U.S. brand icon extension results in more favorable outcomes than a direct advertising comparison condition when country belief is high. No differences are expected between conditions when country belief is low.

PRE-TESTS

To get a feeling for how common comparative advertising is in Germany, we conducted a first pre-test. Specifically, we reviewed a series of popular German magazines. Two German coders assessed the total number of advertisements, the type of advertising (non-comparative, direct comparative, indirect comparative), the product category of the comparison advertisements, and the comparison claims. The German coders agreed across all identified ads. Among the 325 advertisements in the ten German magazines, there were 8 indirect comparative ads (2.5%). There were no direct comparative ads. Thus, while permitted, the use of comparative advertising is not common in Germany. The results substantiated the argument that

a more subtle or indirect form of comparative advertising might be more effective than a more direct form of comparative advertising.

Given these findings, we aimed to develop scenarios highlighting a fictitious brand extension from an actual brand across three advertising claim types: non-comparative advertising claim (as a control), indirect country brand image comparison advertising claim (as a subtle indirect comparison treatment), and a direct national brand icon comparison advertising claim (as a subtle direct comparison treatment). For the scenarios, we selected *Ford Mustang* as the parent brand and *Ford Mustang Motorcycles* as the respective brand extension.

Each scenario was developed as an official announcement in a newspaper article and included a headline and main part. The two treatment conditions additionally included a subheading highlighting the main claim type. The main part described *Ford* as a “big three” American car brand and the *Ford Mustang* model as one of the company’s most popular models. It stated further that Ford plans to introduce Ford Mustang Motorcycles in Germany in the near future to build on the success of its Ford Mustang automobile. The scenarios were identical except for the advertising claim types. The first scenario did not make any comparative claim. The second scenario made an indirect comparative country image claim, stating that the new brand extension is being manufactured in the German tradition of engineering excellence. The third scenario made a direct comparative national brand icon claim, stating that the new brand extension is being manufactured to the same standards of engineering excellence found in quality motorcycles like BMW (see Table 1 for the three final scenarios).

To pre-test the developed scenarios and ensure that the scenarios are understood as expected, we conducted a second pre-test. Specifically, we collected responses from 68 German respondents via an online survey. The surveys were back-translated into both languages (Brislin 1980) by two independent researchers knowledgeable with the topic. The questionnaire assessed whether subjects understood the scenarios (i.e., advertisement claims) as expected, whether the claims made in the scenarios are believable, and whether Ford itself is perceived as a global brand and a brand icon (see details on measurements in the main study). Based on the results of the pre-test, we made minor edits to the advertisement claims. The final scenarios show in Table 1.

Table 1: Ford Mustang Motorcycle Brand Extension Scenarios

No Comparison	Indirect Comparison	Direct Comparison
Control Group	Country Image Comparison	National Brand Icon Image Comparison
Ford plans to Introduce New Ford Mustang Motorcycle Line	Ford plans to Introduce New Ford Mustang Motorcycle Line	Ford plans to Introduce New Ford Mustang Motorcycle Line
	<i>"Manufactured in the German tradition of engineering excellence."</i>	<i>"Manufactured to the same standards of engineering excellence found in quality motorcycles like BMW"</i>
<i>Ford</i> sells many types of automobiles, from small economy cars to cross-overs, SUVs, and trucks.	<i>Ford</i> sells many types of automobiles, from small economy cars to cross-overs, SUVs, and trucks.	<i>Ford</i> sells many types of automobiles, from small economy cars to cross-overs, SUVs, and trucks.
<i>Ford</i> also offers hybrids and electric vehicles. <i>Ford</i> is one of the "big three" American car brands and famous for its <i>Ford Mustang</i> , one of its most popular models and well-known because of its powerful engine, masculine looks, and loyal followers.	<i>Ford</i> also offers hybrids and electric vehicles. <i>Ford</i> is one of the "big three" American car brands and famous for its <i>Ford Mustang</i> , one of its most popular models and well-known because of its powerful engine, masculine looks, and loyal followers.	<i>Ford</i> also offers hybrids and electric vehicles. <i>Ford</i> is one of the "big three" American car brands and famous for its <i>Ford Mustang</i> , one of its most popular models and well-known because of its powerful engine, masculine looks, and loyal followers.
Building on the success of its <i>Ford Mustang</i> automobile, the company plans to introduce <i>Ford Mustang Motorcycles</i> in the near future.	Building on the success of its <i>Ford Mustang</i> automobile, the company plans to introduce <i>Ford Mustang Motorcycles</i> in the near future, manufactured in the German tradition of engineering excellence.	Building on the success of its <i>Ford Mustang</i> automobile, the company plans to introduce <i>Ford Mustang Motorcycles</i> in the near future, manufactured to the same standards of engineering excellence found in quality motorcycles like BMW.

STUDY DESIGN AND STIMULI

Three hundred and twenty-nine German subjects participated in this study. 13 subjects were removed from the data set as they took less than 5 minutes (300 seconds) to complete the questionnaire leaving a total of 316 subjects. We assigned subjects randomly to one of three scenarios that were each followed by the dependent and independent measures.

The stimuli were scenarios about Ford and its plan to introduce a new brand extension, Ford Mustang Motorcycles. The scenarios only varied in their brand extension advertising type. The first scenario used a non-comparative advertising format (i.e., no comparison). The second scenario used an indirect comparative advertising format, referring to the German tradition of engineering excellence (i.e., country image comparison). The third scenario used a direct comparative advertising format, referring to the quality of BMW motorcycles (i.e., national brand icon image comparison). Both comparison advertising formats used

parity claims, instead of superiority claims (see Table 1). We had even cell sizes across conditions.

PROCEDURE

For this research, we recruited subjects from Germany. Subjects filled out an online survey at their own pace. The survey contained three parts. First, we randomly assigned subjects to one of the three scenarios and asked them to complete several measures related to the scenario (in this order): brand extension evaluation, confidence measure, purchase intention, Word-Of-Mouth (WOM), perceived similarity, attitude toward the parent brand, affect toward the parent brand, scenario believability check, promotion manipulation check, perceived brand icon, and perceived brand globalness. Second, subjects completed a series of independent variables (in this order): consumer ethnocentrism (CET), country image, materialism (MAT), cosmopolitanism (COS), and self-regulatory focus (SRF). Finally, we asked subjects for their demographics and interests. We also assessed subjects' perceptions of the study's purpose. The questionnaire took between 15-20 minutes to complete.

MEASURES

We used brand extension evaluation, purchase intention, and Word-of-Mouth scales to assess brand icon extension success. We used existing scales for all *Dependent Variables*. Customers' brand extension evaluation was measured with seven seven-point scales (not at all desirable/ very desirable, not at all favorable/ very favorable, low quality/ high quality, not very satisfying/ very satisfying, not very appealing/ very appealing, not at all likable/ very likable, not at all pleasing/ very pleasing; $\alpha > .96$). We measured confidence (I don't feel confident/ I feel confident, uncertain/ certain, not assured/ assured; $\alpha > .96$) and purchase intention (unlikely/ likely, impossible/ possible, improbable/ probable; $\alpha > .97$) with three, and Word-Of-Mouth (unlikely/ likely, impossible/ possible; $\alpha > .95$) with two seven-point scales.

Perceived similarity between the brand extension and the parent brand was measured with five seven-point scales (not at all similar/ very similar, not at all consistent/ very consistent, not at all typical/ very typical, not at all representative/ very representative, no fit at all/ very good fit; $\alpha > .97$). Parent brand attitude was measured with four seven-point scales (not very likeable/ very likeable, very unfavorable/ very favorable, not very pleasing/ very pleasing, poor/ excellent; $\alpha > .95$) and parent brand affect with two seven-point scales (very bad/ very good, very negative/ very positive; $\alpha > .96$).

Regarding our *Independent Variables*, subjects indicated their perceived scenario believability on two seven-point scales (not at all believable/ highly believable, not at all true/ absolutely true; $\alpha > .95$). Perceived brand icon (I [do not] associate Ford with things that are American, to me Ford [does not] represents what America is all about, To me, Ford is [not] a very good symbol of America; α

>.84) and perceived brand globalness (To me, Ford is a global/local brand, I [don't] think consumers overseas buy Ford, Ford is sold all over the world/ only in the US; $\alpha >.83$) were each measured with three seven-point scales. In addition, four items were used to ensure that subjects understood the scenarios as expected and that the manipulations worked as expected.

Furthermore, the CET scale ($\alpha >.86$) was adopted from Shimp and Sharma (1987) and modified based on Klein, Ettenson, and Morris (1998) and Klein, Ettenson, and Krishnan (2006). The Country Image scale ($\alpha >.84$) was based on Chan, Chan, and Leung (2010). The MAT scale ($\alpha >.85$) was adopted from Richins and Dawson (1992). The COS scale ($\alpha >.94$) was adopted from Cleveland and Laroche (2007) and Cleveland et al. (2009). Finally, the SRF scale ($\alpha >.55$ for promotion-focused and $\alpha >.59$ for prevention-focused) was adopted from Lockwood, Jordan, and Kunda (2002). Additional measures assessed demographics, whether subjects currently own a motorcycle, their interest in motorcycles ($\alpha >.96$) and demand characteristics (Yi 1990).

RESULTS

About half of the participating subjects were female and 42% were single. 33% of the subjects were between 20-29 years of age, 35% were between 30-39 years of age, and 32% were between 40-49 years of age. The majority of subjects was born in Germany and strongly identified with Germans as their national group.

To ensure the effectiveness of the manipulations, we assessed the percentage of subjects that responded correctly to the respective statement. The majority of subjects across all conditions (> 86%) indicated correctly that Ford plans to introduce Ford Mustang Motorcycles in the near future. Furthermore, the majority of subjects in the country icon image condition (76%) realized that the Ford Mustang Motorcycles will be manufactured in the German tradition of engineering excellence, whereas the majority of subjects in the other condition indicated that this was not the case (all comparisons $p <.001$). Similarly, the majority of subjects in the brand icon image condition (71%) correctly indicated that the Ford Mustang Motorcycles will be manufactured to the same standards of excellence as BMW Motorcycles, whereas the majority of subjects in the other conditions indicated that this was not the case (all comparisons $p <.001$). Finally, the majority of subjects across all conditions correctly indicated that the Ford Mustang Motorcycles will not be manufactured in Germany (>67%). As a result, the scenarios (i.e., the claim manipulations) worked as intended.

In addition, subjects perceived the scenarios as believable ($M = 4.25$; $SD = 1.75$). Finally, the parent brand attitude ($M = 4.85$) and parent brand affect ($M = 4.90$) were high, ensuring that subjects had favorable attitudes and affect toward the parent brand.

HYPOTHESIS TESTING

When testing our hypotheses, we controlled for subjects' interest in motorcycles (≥ 4.5 on a 7-point scale) and their total time filling out the questionnaire (≥ 5 minutes).

Hypothesis 1 (H1) predicts that an indirect positive national myth comparative format (i.e., national country image for Germany) is more favorable, results in higher purchase intentions, and results in more favorable Word-Of-Mouth than a non-comparative format. To test this hypothesis, we submitted subjects' responses to independent-samples t-tests. While the results for brand extension evaluation and Word-Of-Mouth approached significance, they were not significant at the 5% level. However, the results indicated that subjects had significantly higher purchase intentions when exposed to the country image comparison ($M=6.5$) than the non-comparison claim ($M=5.4$; $t(79) = 2.7$, $p < .05$). Hence, H1 was supported for the purchase intention dependent variable. When one-tailed t-tests were used, all results were significant at the .05 level.

Hypothesis 2 (H2) predicts that a direct national brand icon comparative format (i.e., BMW parity) is less favorable, results in less purchase intentions, and results in less favorable Word-Of-Mouth than a non-comparative format. We again conducted independent-samples t-test to test this hypothesis. The difference between conditions was not significant across all dependent variables. Hence, H2 was not supported.

Finally, *Hypothesis 3 (H3)* predicts that an indirect positive national myth comparative format is more favorable and results in higher purchase intentions and Word-Of-Mouth than a direct national brand icon comparative format. Independent-samples t-test revealed that subjects evaluated more favorable ($M=6.4$ vs. 5.7 , $t(72)=2.2$, $p < .05$), had higher purchase intentions ($M=6.5$ vs. 5.3 , $t(72)=2.8$, $p < .05$), and Word-Of-Mouth scores ($M=6.3$ vs. 5.2 , $t(72)=2.4$, $p < .05$) when exposed to the country image comparative than the brand icon comparative. Hence, H3 was supported. Table 2 provides a summary of the means across conditions for each dependent variable.

Table 2: Means (Standard Deviations, SD) for Brand Extension (BE) Evaluation and Purchase Intentions (PI) and Word-Of-Mouth (WOM)

Claim Manipulation	BE Evaluation (SD)	PI (SD)	WOM (SD)
Control Group	5.9 (1.8), N=38	5.4 (2.3), N=37	5.5 (2.2), N=36
Country Image Condition	6.4 (1.1), N=45	6.5 (1.3), N=44	6.3 (1.5), N=45
National Brand Icon Condition	5.7 (1.7), N=29	5.3 (2.4), N=30	5.2 (2.2), N=29

Hypothesis 4 (H4) predicts that perceived similarity mediates the relationship between claim type (scenario type) and the dependent variables. To test H4, we conducted a series of regression analyses (Baron and Kenny 1986). Specifically, a significant relationship between claim type (no comparison, indirect country image comparison, direct brand icon comparison) and the outcome

variables (brand extension evaluation, purchase intention, Word-Of-Mouth) was found (all $p < .05$; see Table 3). The regression of the mediator (perceived similarity) on the independent variable (claim type) was also significant across all dependent variables (all $p < .05$). However, when claim type and perceived similarity were simultaneously regressed on the dependent variables, the claim type coefficient was no longer significant (all $p > .05$), whereas the coefficient of perceived similarity remained significant (all $p < .05$; see Table 3). Therefore, the results provide support of a mediation effect. Hence, H 4 was supported.

Table 3: Mediation Analyses

Model	Variable	Unstand. (SD)	B	p
CT* → Brand Extension Evaluation	CT	-.38		.04
CT → Similarity	CT	-.38		.03
CT → Similarity → Brand Extension Evaluation	CT	-.08		.54
	Similarity	.73		.00
CT* → Purchase Intention	CT	-.63		.01
CT → Similarity	CT	.89		.00
CT → Similarity → Purchase Intention	CT	-.16		.42
	Similarity	.87		.00
CT* → WOM	CT	-.55		.02
CT → Similarity	CT	.95		.00
CT → Similarity → WOM	CT	-.14		.45
	Similarity	.93		.00

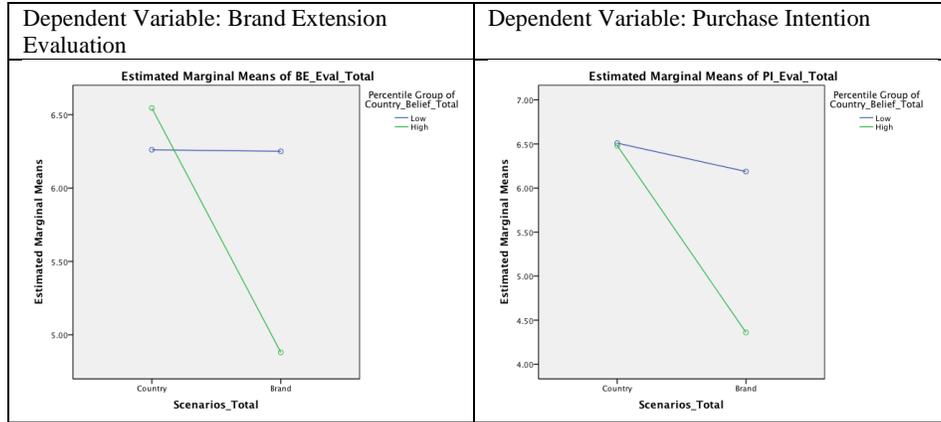
*CT = Claim Type (non-comparative, indirect comparative, direct comparative)

Hypothesis 5 (H5) predicts that the relationship between claim type (scenario type) and the dependent variables is moderated by country belief such that subjects with favorable country belief (about Germany) (a) evaluate more favorably, (b) show higher purchase intentions, and (c) show higher Word-Of-Mouth scores when exposed to an indirect positive national myth comparative (i.e., national engineering country image for Germany) than when exposed to a direct positive nation brand icon comparative. In contrast, we do not expect significant output differences for subjects with less favorable country beliefs across these two conditions.

To test this hypothesis, we submitted subjects' responses to 2 (claim type: direct versus indirect comparison) x 2 (country belief: high versus low) between-subjects MANOVAs with brand extension evaluation, purchase intention, and Word-Of-Mouth as the dependent variables. Regarding country belief, we split subjects into two groups (high versus low) using a median split. The claim type x country belief interaction was significant for the brand extension evaluation ($F(1, 68)=6.5, p < .05$) and the purchase intention ($F(1, 68)=4.4, p < .05$) dependent variables, but not for the Word-Of-Mouth ($p > .05$) dependent variable. Post hoc analysis for the brand extension evaluation and purchase intention measures revealed that subjects with high country belief evaluated the Ford Mustang Motorcycle brand extension significantly more favorably ($M=6.5$ vs. $5.0, t(38) = 3.1, p < .05$) and had higher purchase intentions ($M=6.5$ vs. $4.2, t(38) = 3.4, p < .05$) when an indirect country image comparison claim was made than a national brand

icon comparison. No differences were observed for subjects low in country belief (brand extension evaluation: $M=6.2$ vs. 6.3 , $t(32) = .1$, $p>.05$; purchase intentions: $M=6.5$ vs. 6.1 , $t(32) = .8$, $p>.05$; Word-Of-Mouth: $M=6.3$ vs. 5.9 , $t(32)=.7$, $p>.05$). As a result, H5 overall was supported. Figure 1 summarizes the results of H5 for the two dependent variables that showed significance.

Figure 1: Moderating Effects between Claim Type and Country Belief



GENERAL DISCUSSION AND MANAGERIAL IMPLICATIONS

In this study, we examined the effect of different advertising formats when promoting a new U.S. brand icon extension in Germany. We used *Ford Mustang Motorcycles* as the fictitious new U.S. brand icon extension. Based on a series of pre-tests, we developed three advertisement claims promoting the new extension: One non-comparative advertisement claim (i.e., control group), one indirect comparative advertising claim using a national myth reference (i.e., subtle indirect comparison treatment group; for example: “the new brand extension is being manufactured in the German tradition of engineering excellence”), and one direct comparative advertising claim highlighting a German national brand icon (i.e., subtle direct comparison treatment group; for example: “the new brand extension is being manufactured to the same standards of engineering excellence found in quality motorcycles like BMW”).

The findings of our study reveal that a relatively similar brand icon extension can be successfully promoted in Germany when an indirect comparative advertising format with a national myth reference is used. Specifically, our findings suggest that subjects in Germany preferred a mild, indirect comparison claim to direct comparison and non-comparison advertising claims. Therefore, it might be beneficial for marketing managers to use indirect comparison advertising claims when promoting new brand icon extensions in a new culture. The fact that mild, indirect comparison claims were more successful than direct comparison claims might be due to the fact that the latter are not common in Germany. In

addition, the fact, that mild, indirect comparison claims were more successful than non-comparison claims might be due to the fact that the former are relatively mild (parity claims) and refer to country image associations (e.g., engineering excellence for Germany) thereby highlighting a positive image about the culture into which the new brand icon extension is being introduced.

The findings further suggest that perceived similarity mediates the relationship between advertising claim type and output variables in Germany. Given this, it might be important for marketing managers promoting new brand icon extensions in Germany to ensure that only new brand icon extensions are being introduced that are perceived as relatively similar to the parent brand. This will make the adoption of the new brand icon extension more likely.

Finally, the findings suggest that country belief moderated the relationship between claim type and output variables. Thus, it is important to promote a new brand icon extension with a more indirect comparative ad format. If a more direct comparative ad format is used to promote a new brand icon extension in Germany, marketing managers might want to consider targeting potential customers whose country belief does not dominate their decision-making.

CONCLUSION AND FUTURE RESEARCH

This research finds that an indirect comparative advertising claim highlighting a country brand image is the most effective advertising format for a new U.S. brand icon extension in Germany. This research further finds that perceived similarity of the parent brand to the U.S. brand icon extension mediates the relationship between advertising claim type and U.S. brand icon extension success. Finally, this research finds that country belief moderates this relationship. Consequently, this research advances the brand extension and advertising/marketing communication literatures in that it examined (1) different advertising formats (non-comparative, indirect comparative, direct comparative) and their effects on the success of a new brand extension of a U.S. brand icon in Germany and (2) the generalizability of previously identified antecedents for brand extension success when iconic U.S. brands for which strong associations about the brand *and* the country exist in consumers' minds are promoted.

Future research is needed to further investigate the effects of perceived similarity and country belief on the relationship between advertising format and brand icon extension success. Further, we collected data only in Germany, a highly individualistic culture. It would be interesting to replicate our study in different cultures, particularly in a more collectivistic culture. It would also be interesting to replicate our research using different fictitious and real U.S. brand icon extensions, or using fictitious/real foreign country brand icon extensions that are promoted in the U.S. Finally, researches might find it interesting to investigate brand icon extension success for brand extensions that are in similar versus dissimilar product categories.

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TEACHING FROM A DISTANCE: CHALLENGES IN CLASSROOM MANAGEMENT TO PROMOTE PROFESSIONALISM

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ABSTRACT

Distance learning is a format that has grown exponentially as an accepted method of andragogy, and the COVID-19 crisis has accelerated the adoption of and acceptance by many stakeholders. While online learning as a solution to the need for social distancing continues to be a viable option, the embracing of remote learning options should not and need not sacrifice a rich post-secondary academic environment. Educational technologies such as learning management systems are effective teaching tools, but the unique online challenges to the educator, administrator, and student alike remain. Of these challenges, the development of communities of inquiry and the preparation for professional life are significant. Along with rapidly changing social mores and environmental influences, the modern academic pursuit is shrouded in consumerism and commodification. Coupled with limited empirical evidence, these factors suggest that despite well-planned courses, students may be subject to distracted wandering, increased inattention, and may become progressively disengaged as the independence online learning allows, becomes a silent classroom contagion. Based on the findings, without a scaffold of behavioral expectations of the more traditional classroom, an online course may permit an informality which threatens productive inquiry and meaningful professional development.

Keywords: Online Learning, Professionalism, Student Development, Online Classroom Management, Distance Learning

INTRODUCTION

In higher education, distance education or online courses are terms describing instruction and evaluation of students who are geographically separated from the instructor. While distance education typically is dependent on one or more technologies to bridge this distance, the modality is also heavily reliant on regular and substantive interaction between the student and the instructor or material. The interaction between student and subject matter may occur synchronously or asynchronously (US Department of Education, 2018). Prior to the COVID-19

crisis, the reported number and or percentage of both undergraduate and graduate students enrolled exclusively in distance education courses varied by type of institution, with private for-profit institutions far exceeding students enrolled at both private nonprofit institutions and at public institutions. In 2018 the majority of students (66%) enrolled at private for-profit institutions completed distance education courses, a number exceeding other, non-profit and public educational institutions. Figures 1 and 2 depict the statistics reported then (US Department of Education, 2018). In the Fall of 2019, approximately seven million students in the US enrolled in online courses with 53% enrolled in at least one online course (National Center for Education Statistics, 2019). Despite the disparities reported between institutions, the proliferation of online course offerings prior to COVID-19 (Howe et al., 2018) and the burgeoning demand created by COVID-19 worldwide, the online modality is undeniably pervasive. Notwithstanding the disorder caused by the immediate action to convert classroom education to online platforms for all levels of institutional learning from primary to post-secondary education, the online environment already posed learning challenges. Moreso, online or distance learning may not only exacerbate the challenges of academic rigor, it may also inadvertently disrupt a social and cognitive environment for professional development and behavior.

Figure 1. Percentage of undergraduate students at postsecondary institutions who enrolled exclusively in distance education courses, by level and control of institution.

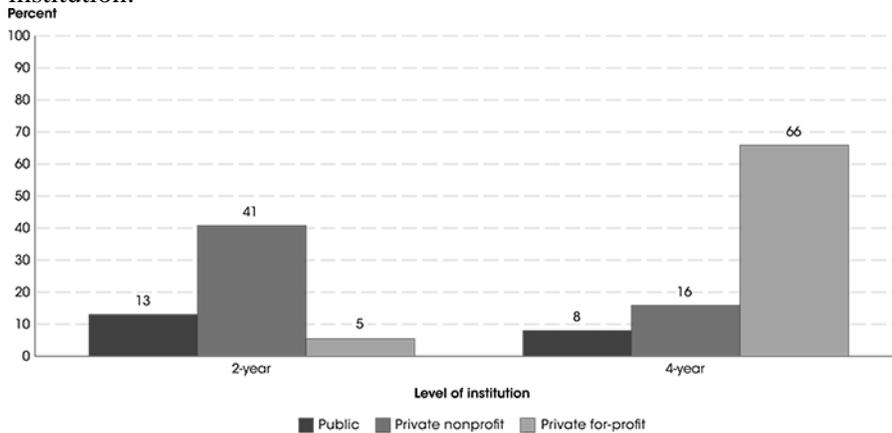
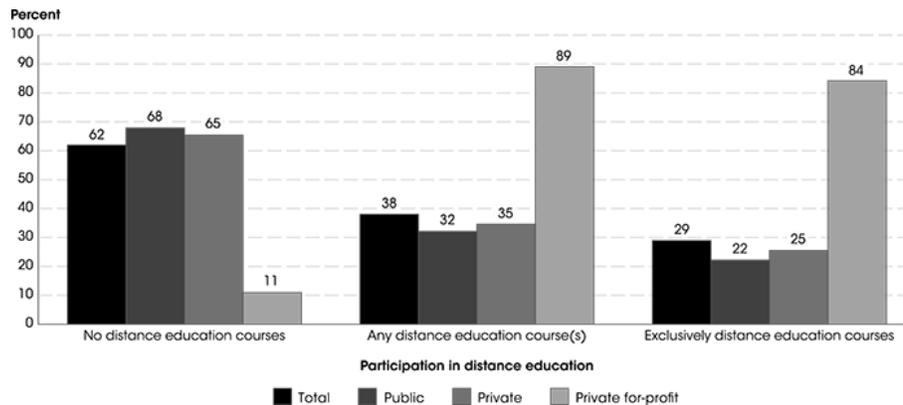


Figure 2. Percentage of postbaccalaureate students enrolled in postsecondary institutions, by participation in distance education and control of institution.



In post-secondary education, there already exists a growing body of research discussing how to teach online with technology, important elements of instructional design, and course-specific factors which affect engagement (Czerkawski & Lyman, 2016). However, there is limited information and recommendations regarding how to create a virtual environment conducive to the development of professional ethics, behaviors, and overall decorum throughout the learning experience. While Shea and Bidjerano (2009) examined the relationship between community of inquiry, instructional design and content delivery in online learning and student cognitive and social presence, the current work expands on the premise to move beyond technical/design conversations to address online student engagement and learning as it influences professional development. The purpose of this work is to surface what we believe may compromise the professional development of students if there are not deliberate interventions to mitigate the potential hazards of distance learning.

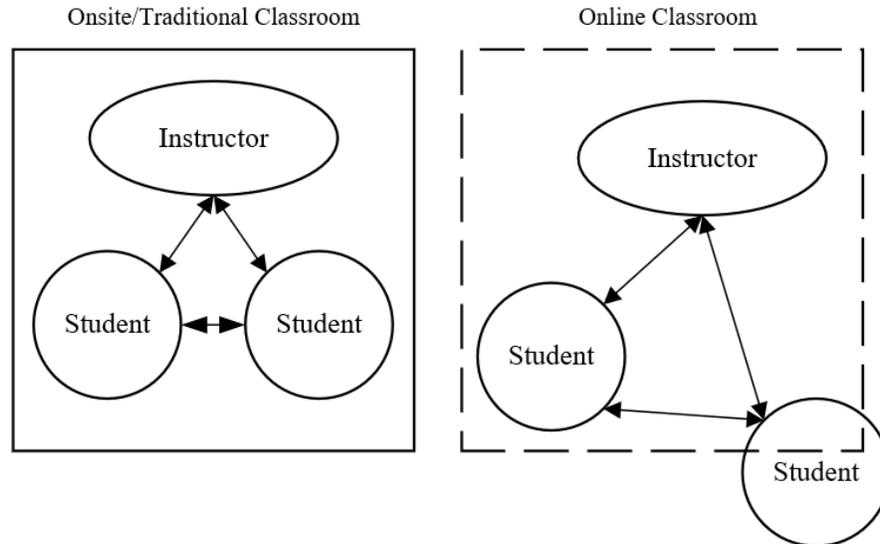
There are a multitude of determinants of professionalism and active engagement in a learning community, many of which are outside of the purview of the University. These factors are even more likely to be at work in an open enrollment or less selective institution whereby admissions make it possible for students less acquainted with traditional professional or educational community standards to enter the post-secondary environment. Factors outside the control of the faculty and program leadership may include student life experience and previous responsibilities, individual characteristics and values, co-occurring life demands, and generational differences to name a few. Many of these have been shown to affect student engagement, retention, graduation, and other important outcomes (Aljohani, 2016).

As universities and other learning communities create opportunities for students to attend from a distance in more casual environments such as homes, coffee shops, and other public spaces, the university community and context begin to disappear. In the absence of contextual cues for behavior in the educational setting, this “virtual” absence may loosen restraints and exert less control over student behavior. Students may also be frustrated by the demand for a setting outside of a private environment. For instance, the online sudden upsurge caused by the Pandemic

generated studies about the online student experience in which students reported the distraction for learning in places outside of the classroom, such as extraneous noises and family conversations within the home with the inability to concentrate as a result (Selco & Habbak, 2021; Yeung & Yau, 2021). Though anecdotal, many faculty from our institution and others report that during scheduled online pre-pandemic class sessions, students may have children on their laps, noisy animals in the background, or students “missing in action” (i.e., students have logged into the class, a chat or live video lecture but are not available for discussion or to answer questions). Both authors can attest to these observed behaviors. It is our impression that the behaviors and developing norms we observe in our online classrooms endanger instructors’ ability to not only deliver high-quality educational content but also to progressively indoctrinate students into discipline-specific ways of thinking, behaving, and relating to their colleagues.

Though the traditional, face-to-face classroom environment may not be the ideal environment for the creation of professional standards and practice mores, the online modality with separation in time and space between participants creates even more opportunity for disparate behaviors and disparate cohort social norms and may lower overall control by the faculty member. Appendix 1, adapted and revised from Berry (2018), presents advice to faculty and students to address the operational differences between onsite and online learning. Berry moved beyond instructional design elements and discussed dispositional and cognitive changes necessary in both instructors and students, which may make the online learning environment productive and formative. Yet Berry explained “cohort discussion [in online postings] results in more opinion, comments...but perhaps also less academic focus” (2018, p. 46). Student behavior is a product of multiple influences some of which are fashioned by external forces that cause a simultaneous co-reaction within universities, programs, and courses, constructing paradigms of thought and expectation. Figure 3 illustrates the physical or virtual presence and communication patterns predominant in onsite and online courses as expanded upon by Berry (2018). Though traditional on-site classroom activities include group student to student activities and substantial interaction with faculty members, the figure highlights the student independence afforded in an online classroom, distant from faculty and other students. The spatial and/or temporal separation in a distant learning context creates a psychological separation between learners and instructors, referred to as transactional distance (Moore, 1990). As the student drifts away from the boundaries of the classroom environment, we predict the quality of interaction between other students and faculty will diminish in the absence of intentional countermeasures to bring about high-quality communities of learning.

Figure 3. Student, Faculty, and Classroom Relationships in Onsite and Online Courses



Separate from the classroom venue, there are a range of forces that shape academic and professional characteristics. Though student culture, ethnicity, academic preparation, and admission requirements are each independent and co-dependent variables in establishing a student's academic and professional identity, there is also a university ecology which exerts considerable force in a dynamic interplay between the student's external ecological influences and the university's ecosystem (Back et al., 2016). This interplay contributes to behavior differences amongst student bodies and faculty at most universities and are subject to local, regional, and international influences. For instance, Morrow asserted (1994) that political systems can create student self-images of victimization that undermine a culture of learning by attributing problems and their remedies to institutions, such as educational institutions. In response, these institutions may change entry and curricula requirements that compromise academic achievement. According to Morrow, systems may politicize and delegitimize educational achievement by wrongfully addressing the ills of contemporary life and its dogma by a required response from educational institutions to support society's evolution by changing their academic qualifications. Thus, a change in culture can invert the burden of responsibility so the student cannot be blamed for the lack of success, but instead, place blame with teachers, curriculum, and/or the system. In response to the shift in societal demands, Morrow further suggested universities may unintentionally legitimize and promote entitlement in their learners at the expense of dismantling academic standards and/or ideology.

The societal assignment of individual, group, organizational, and governmental responsibilities have undergone shifts that coincide with an increased influence of consumerism in higher education. In the US, many students and universities have embraced the elements of consumerism which now drive, at least in part, the

behavior of all stakeholders, but university programs often fail to recognize the student as a different kind of consumer (Jackson, Jackson, & Reinhardt, 2010; Offstein & Chory, 2017). If the product is an education, then each constituent must contribute to the product's performance. While this notion may seem obvious, the attributes of popular culture, responses to perceived consumer demand and increasing pressure to minimize mesosystems to compensate for flattened enrollment and budget deficits, may obviate the roles and responsibilities of each constituent (Offstein & Chory, 2017). The institution, the support staff, the faculty, and students collectively share responsibility for student outcomes. Back et al. (2016) argued that school climate determined by classroom management and staff relations had a positive and reciprocal effect on academic achievement. Students cannot take their education off a shelf without a substantial personal contribution and commitment to discipline-specific instructions, caveats, and professional norms. The student-centeredness in the learning process is magnified in an online environment and demands students assume agency in their increased responsibility for learning that requires self-regulation, self-motivation and self-discipline (Chiu, Lin & Lonka, 2021; Yeung & Yau, 2021). Yet, to confound a reshaping of academic culture, distance learners may "distance" themselves from the formative relationships with the university—less campus office encounters, less university personnel contact, and less campus faculty visits as a result of regular enrollment in off-campus, online courses. Consequently, we may see a lesser allegiance to an academic culture.

Online environments need close examination and design to not only circumvent the predictable disadvantages, but also to capitalize on the unique benefits of the teaching model. While previous writings in instructional design have focused on engagement and satisfaction in online coursework, here we discuss the scaffold for online learning and how the environmental cues for online course performance are vital to instigate and reinforce necessary professional attributes. Therefore, content design, discussion boards, or assignments per se are not the discussion targets in this article. Rather, we concentrate on what is revealed in the literature to help uncover vehicles for communicating and modeling professionalism, which may be based in learning communities, faculty behavior, and classroom management. Our discussion also aligns with a community of inquiry that "involves (re)constructing experience and knowledge through the critical analysis of subject matter, questioning, and the challenging of assumptions" (Garrison, Anderson, & Archer, 2001, p. 7).

We define classroom management as the co-responsibility of student and faculty to uphold the learning space as a dialectically productive space for academic exchange that values, enhances, and models professional development. Our working definition is informed by Back et al. (2016): "...an umbrella term for techniques employed by teachers to create a positive environment that allows students to effectively focus on academics" (p. 398). We add the consideration by Page and Jones (2018) that environment and relationships underpin engagement, placing a focus on faculty and student behaviors and their interactions conducive

to learning. Cumulatively, these factors drive the guidelines for classroom management.

Finally, the following is an environmental analysis of student and faculty online engagement, giving rise to recommendations for improving curricular and co-curricular learning and professional development. While the ecological influences at the university level (mesosystem) must be acknowledged for its school climate and culture, the discussion is primarily relevant for faculty, administrators, and others who direct curricula and course design. Specifically, how can we maintain or even enhance current andragogical practice in traditional post-secondary education for the success of students in and graduates from predominantly online learning programs? We begin with an interdisciplinary review of the literature and current understanding of the online learning environment from both a faculty member and social psychologist.

LITERATURE REVIEW

One essential ingredient for student academic and professional development is the opportunity to interact within a professional community to fuel intellectual dialogue and exchange of ideas. The activities that support the development depend on a community based in well-founded interpretations from discovery, analysis, and evaluation. We use these statements as a description of critical thinking. A component of the mental exercise is the dialogue that is cultivated as a result of active engagement sponsored and supported by the classroom or educational environment. The online format may be convenient, and with diligent support and tools, the format can foster the critical thinking higher learning espouses, but there may be unintended consequences (Cater et al., 2012). The unintended consequences are not just the effects of an online environment that may invite less formal, structured and purposeful classroom conduct, but how business, technology and popular culture forces multifarious interactions between institutions, society and individuals to yield a potentially unfavorable result.

Consumerism

A new wave of academic consumerism may be underway, though earlier in 2009, Ng and Forbes addressed marketing as a tool that higher education had yet to employ to maximize yield; the wave is clearly underway now. According to Offstein and Chory (2017), prompted by a revenue decline, a surge of for-profit institutions and lower support from government, traditional brick-and-mortar universities are faced with increasing pressure to market educational “products” more than ever before. Students and parents may be customers and professors may be service providers. While faculty may have been charged with propagating professionalism and ethical citizenship, a growing faculty pressure is to also meet the metrics of retention and graduation rates along with student satisfaction (Ng & Forbes, 2009). Ng and Forbes proposed students have expectations which dictate deliverables by the institution, yet students often underestimate what they must deliver to be successful. Therefore, this “one sided expectation leads to student consumerism and disengagement expectations” (p. 40). Though Ng and Forbes recognize the world stage that occupies education is subject to business and marketing signals, the UK, for example, as compared to the US, still values

research universities over vocational-based institutions. The rationale is that these universities are rated higher than vocational schools by students and employers for their research aptitude, with a focus on teaching students how to think rather than what to think.

Entitlement

Jackson et al (2010) addressed academic entitlement. They described it as students who believe they are deserving of certain goods and services by their institutions and professors separate from any effort or performance within the classroom. Their premises were founded on Morrow's (1994) work of the negative shift to a culture of entitlement that uproots scholarship achievement and its personal efforts. Institutions embrace entitlement by the awards they confer to students through unearned degrees without the mastery. Perhaps even more troubling are the lingering effects of entitlement and how these contribute to academic dishonesty and incivility, and their implications to ethics and professionalism (Jackson, et al, 2010; Morrow, 1994; Offstein & Chory, 2017).

In a study conducted by Jackson and others (2010), a phenomenological approach was used to understand the experience of entitlement by those students who expressed feelings of entitlement. They posited several theories to frame their findings. One theory is social promotion. It is a belief that credit should be conferred for social reasons, life circumstances or reasons outside of academic performance. The authors applied the theory to explain many of the responses they received during student sessions for the study. Students responded that there should be credit for tuition paid or a tangible result, such as a course grade or a job post-graduation. The authors likened it to the psychological concept of unconditional positive regard and suggested that student perceptions may be a result of early inflated self-esteem, rewarding children for every minimal performance, regardless of effort and achievement. For instance, study participants related expressions that just attending class is worthy of credit and while they judged reading material as their responsibility, they also shifted responsibility for achieving scholarship and grades to their professors and alleged it was out of student control. When questioned about classroom etiquette, such as cell phone use, participants "sounded like customers" (p.352). Students described their use of cell phones, along with others using computers at will, during class time. The researchers surmised student perceptions were based upon students' right to control the classroom environment, since they paid for their classes. "The students in the study did not seem to have a schema for the classroom protocol that required them to surrender control of the classroom to the professor or to the learning environment" (p. 352).

Significantly, academic achievement may be defeated by the academic institutions that reject its own standards to capitulate to the motives of a culture or a fallacious belief. As academicians we have been charged with upholding standards to which achievement is meaningful, the outputs of which contribute to the welfare of society. Morrow (1994) asserted, and Jackson and others concurred, educators will have played "an active role in the demise of higher education, if we permit achievement to be eroded by entitlement..." (Jackson et al., 2010, p. 344).

Classroom Behavior Changes

Faculty have a critical role to form and sustain the standards by which students develop professionalism and ethics that guide applied professional citizenship through fostering a positive classroom climate that perpetuates both. Student incivility may run the range of disrespectful communication with the faculty or other students, using vulgar language, unprovoked and chronic interruptions or attending sessions under the influence of drugs or alcohol. Or, the more frequent behavior encountered may be less intrusive, more subtle. While the online environment may decrease the visibility and incidence of overt behaviors, and might minimize the precursors to egregious behaviors, the opportunity to “check out” without being noticed, the inattention and absence, is a form of disruption. The silence prevents robust dialogue to promote the goals of academic exchange. The absence manifested in its many forms reflects poor professional modeling, and the behaviors anticipated in a professional workplace. Hirschy and Braxton (2004) studied two forms of student incivility, disrespectful disruption and insolent inattention, and concluded that both behaviors had adverse effects on classroom climate and students’ persistence in their course of study with negative influence on students’ commitment to the university.

While disengagement, inattention and absenteeism may be early gateways or predictors to more troublesome behaviors and this escalation may not emerge in the adult learning space, each of these behaviors may be disruptive to learning. Further, according to Hirschy and Braxton (2004), classmates behavior affected other students’ by lowering their perceptions of intellectual growth and their satisfaction with the academic experience. This finding was confirmed with a study by Bjorkland and Rehling (2010) that included over 3500 students who responded to queries about disruptive behaviors during class that ranged from mild to more serious forms of disruption (e.g., text messaging, getting up during class, disparaging remarks, and coming to class under the influence of alcohol). The authors suggested ways in which faculty might address these by identifying the more frequently occurring or the most egregious forms of behavior, but firmly taking action to set an expectation.

In response to their assessment that faculty and employers were concerned about better establishing professional behavior competencies amongst students, Hall and Berardino (2006) included student ethics in their study about how to teach professional behaviors. They suggested that in addition to dress, manner, time management, meeting behaviors, and punctuality, course content should include how students may learn about ethics through in-class scenarios, for instance, cheating in their courses, plagiarism and or asking favors of their instructors, such as changing a grade for non-academic purposes.

The Role of the Professorate

Upholding a code of conduct that supports ethical and professional standards within academic settings, and then later in the workplace, has been subject to many cocurricular recommendations such as students completing a tutorial on academic integrity, establishing student contracts and enforcing ethical violations. Yet another and perhaps stronger influence to exemplify professional behaviors may

be the professor's behavior and the role of the professorate. Offstein and Chory (2017) for instance conducted a study on the behaviors of professors. In part, the basis of their study was the premise that professors may have added vulnerability in a consumer-based environment. Professor evaluations by students and the precipitous change in academic culture spurred by student consumerism may drive faculty to garner student favor to a role of an "academic merchant" in which grades and evaluations act as an exchange currency (p. 274). As a result, professor behaviors may degenerate to downward convergence. Faculty may adopt an in-group status reducing social distance by sharing more personal information about themselves, self-disclosing about intimate relationships, and may share their use of alcohol and/or gossiping (Offstein & Chory, p. 275). The study conducted included 130 undergraduate students with ages ranging from 18 to 25 years. Students completed paper questionnaires with various subscales to assess student perceptions of their instructors. The purpose of the study was to examine the relationship between student perceptions of professor ethical character, manifested in professor attempts to gain student favor, and student behaviors of incivility and academic dishonesty. Their findings reflect that the more professors attempted to gain favor, the more likelihood occurrence of student incivility, particularly if professor behavior negatively influenced students' ethical perceptions of their professor. Behaviors of academic dishonesty were also related to professor's behaviors to curry favor, but not necessarily because of a judgement about ethical character. The results have implications for what boundaries may persist over time. Despite popular culture, the effects of social media, and a more casual and prolific sharing of information across relationships, the social scoring in this case upholds the professorate as a role model, a keeper of professional decorum to exhibit and uphold the demonstrations of what students still expect in the classroom.

Academic Communities

Belonging to a community is fundamental to learning success (Selco & Habbak, 2021). We propose that professional communities of inquiry begin with creating effective groups in the learning environment that have both individual and collective accountability. Further, the notion may be extrapolated to apply to the Self-Determination Theory that students are more apt to engage if they feel autonomous (learner control), competent (capable of producing desired outcomes) and have a sense of belonging (Hartnett, 2016; Center for Self-Determination Theory, nd; Selco & Habbak, 2021).

According to Garrison, Anderson and Archer (2001), a major challenge to a virtual text-based environment is creating a critical community of inquiry. They described a practical inquiry or critical thinking model to explicate how cognitive presence is operationalized. It incorporates the shared and the private worlds of the learner. Earlier, Garrison and others (2000) conceptualized a community of inquiry by describing three essential elements: cognitive, social and teaching presence. Each element is a separate construct but inextricably linked. Cognitive presence is foundational to critical thinking and is both a means and an end, and as they further posit, it is frequently presented as the “ostensible goal of all higher education” (p. 89). They define cognitive presence as “...learners able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry” (Garrison et al., 2001, p. 11).

The second element, social presence, is the ability for participants to project themselves as “real people” (Garrison et al., 2000, p.89). We define it as the infusion of self. Further, if the participants find the interaction enjoyable, then social presence is not only an element of the community of inquiry but is a direct contributor to the success of an educational experience. Finally, teacher presence is the third construct, but it can be played by students, or the teacher assigned to the course. Though teaching is generally assigned to a professor, with the responsibility for course management, building understanding and directing instruction, in communities of inquiry any participant can take the lead for the primary educational function at any time. Facilitation is seen as a co-responsibility of teacher and all other participants.

While the pros and cons of oral versus text-based communication remain a subject of controversy, the face-to-face context with verbal communication cannot be ignored as a significant contribution to the communities of inquiry that prepare students for their professional roles. Written communication is a dominant medium within distance learning as course management relies on discussion boards, postings, and written assignments to generate ideations and dialogue between peers. Paralinguistic cues are absent in written communication and often change the dynamic within the dialogue context in any milieu but may be the more important in an educational environment where concepts and learning are new. The absence of body language, facial affect, and tone can render remarks uninterpretable, or easily misunderstood. Garrison and others (2000) posit that “cognitive presence is more easily sustained when a significant degree of social presence has been established (p. 95). More importantly, the relationship of communities of inquiry at the education experience inflection point, may affect professional roles in the future. Much of the interactive exchange within a working environment between colleagues or within teams is generally by oral means; notwithstanding, formal reports and assessments that are common in professional life.

In dialogue, students with the guidance of faculty who provoke thought and correct misconceptions, deliberately vacillate between reflection and discourse. The value of teacher presence cannot be overstated. Students desire timely and consistent communication and connection to clarify, further prompt and promote ideation (Stone, 2019). We agree the hallmark of a community of inquiry is one that defends beliefs, and prompts inquiries between students, with a robust interaction that identifies the consequences of stated ideas. So, the online environment as currently constructed and predicated on diminishing synchronous exchanges creates powerful challenges to the establishment of communities of inquiry. Even in the presence of a thoughtfully designed course with robust interaction, every episode of environmental distraction, online at home or in public spaces, contributes to the cumulative net effect of thinning the academic dialogue.

To form a community of inquiry, a deliberate and purposeful initiative to do so must be tangible and visible to which the rationale and objective is clear. Creating a community of inquiry for professional enculturation may be affected by student exposure to a sense of community and its link to the development of communities of practice, but there is a distinction between the two. Rovai (2002) used the construct of sense of community to underpin his study of a classroom community in an online or distance learning setting for adult learners, calling for a more deliberate effort to create a community of learners. The four components that describe a classroom community, according to Rovai, are spirit, trust, interaction and learning. Through these components, students have a sense of belonging, duties to each other and a commitment to shared goals. The findings in his study suggest well-guided online inter-learner discussions by instructors promote community and can better ensure equity.

Oliphant and Mueller (2016) used Rovai's model in a study with the recognition that a sense of community is connected or a pre-condition of communities of practice whereby they both intricately support professional practice and communities of inquiry. Their focus was what fosters a sense of community and a community of practice in a distance learning setting. The findings indicated that relationships with other students and the faculty were essential to building both. Their findings also replicated others (Oguz & Poole, 2013) that barriers to interaction include geographic and temporal separation. And, for those students that could not meet face-to-face or had time constraints, they at times felt isolated and disconnected. Through another study, Oguz and Poole also posited that social networks formed during the educational process can aid in professional connections throughout their careers, but distance learners have a disadvantage with less face-to-face exposure. These results re-emphasize the added faculty responsibility to design online courses that create communities, without which the professional communities we seek may suffer. Further, adult learners with extended responsibilities of jobs and families have an added challenge.

Broken Window Theory Applied

Ongoing and/or unaddressed instances of distraction, disengagement, and absenteeism/presenteeism may contribute to an environment that prompts similar and ever more disruptive behaviors. Although originating in public safety and policing, Wilson and Kelling's (1982) Broken Windows theory of community disorder applies well to the literature presented. Wilson and Kelling, in their seminal writing and subsequent research, suggested that physical and social signs of disrepair (i.e., broken windows) contribute to an environment of fear and distrust, increasing the likelihood of increased criminal behavior and communal mistrust. Successive authors applied the theory to the use of proactive, community policing methods aimed at preventing escalation of criminal activity in neighborhoods (Braga, Welsh, & Schnell, 2015; Gielow, 2016; Skogan 1990).

The online classroom may be likened to the Broken Windows Theory of community disorder as its format presents students, instructors, staff, and administrators with the built environment whereby the maintenance of behavior, and or the exhibitions of misbehaviors within the environment, directly affect subsequent behaviors by all actors. In other words, instances of absenteeism in all forms, overly casual conversation, inappropriate dress, or similar low-level erosion of professional standards can lower inhibitions for similar or increasingly disruptive behavior in the future.

Skogan (1990) expanded upon the original theory to include neighborhood instances of *incivility*, which he argued contributed just as much as physical signs of community disrepair and decline to citizen dissatisfaction, withdrawal, and fear of victimization. This more insidious social withdrawal and dissatisfaction are most likely to affect students participating in a regularly scheduled online environment without a required, deliberate, and focused effort to minimize it, although severe victimization (e.g., rudeness, bullying, and cyber stalking) can also occur. Therefore, the design and reinforcement of civil and professionally

appropriate behaviors may be essential in the online environment, where the influence of a shared physical environment is largely removed. More likely, a classroom that is increasingly unstructured and without the behavioral scaffold, is a gateway for diminished participation. While the unintentional, but altered online environment, may not lead to severe disruptive behavior, the environment may compromise the preparation of students to appreciate the academic exchange, the robust inquiry, and the protocols for dialogue in a professional setting.

The limits of generalizability to higher education of the Broken Window Theory and subsequent validation and meta-analysis work cannot be ignored (Braga et al., 2015). Theory originators as well as subsequent researchers over the past 30 years have generally applied the theory to public safety and community-based policing. However, there have been early attempts to extrapolate this work onto college campuses, albeit but not applied to the online instructional environment (Gielow, 2016). Gielow, in an unpublished master's thesis, applied Broken Windows Theory to college and university campuses with regards to campus deterioration, disrepair, and student fear of violence. The author argued that university communities are similar to more traditional neighborhoods and thus subject to the same risks of physical and social breakdown.

Braga, Welsh, and Schnell (2015) completed a meta-analytic review of the theory and subsequent applications with another important conclusion. Specifically, derivative changes to policing models across 30 randomized trials showed strongest support for programs based on community and problem-solving interventions designed to address the neighborhood or physical site rather than disorder maintenance targeting individual actors and behaviors. Given the inherently ecological focus of the original theory, it is not surprising that the greatest effects were found in environmentally focused interventions (Braga et al., 2015).

Overall, we believe the chorus of authors from education, sociology, criminology, and psychology demonstrates the iterative and possibly escalating relationship between individual actor behavior and the social/physical environment within the burgeoning online learning environment. As we have summarized in Figure 4, this escalation of behavior builds over time, both within courses and across programs,

as the environment is either maintained or deteriorates.

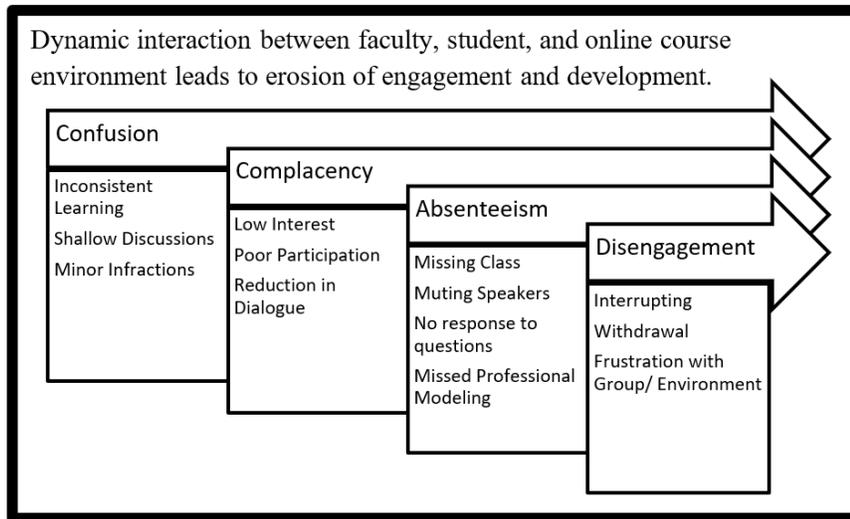


Figure 4. Escalation of Student Behaviors as influenced by Classroom Environment

DISCUSSION

Changes across society, education, and andragogical practice are shaping new methodologies and modes of higher education which provide both new opportunities and potential pitfalls for faculty and administrators. The social forces of consumerism, entitlement, and diversifying behavioral norms and their expression in developing online learning environments demands examination as well as faculty, administrator, and student adjustment. Here we revisit these topics with application to online learning and provide recommendations for adjustments. These recommendations are confined by context and institution-specific variables. Transparency through clear and consistent communication is a learning tool that can help both faculty and students prevent distraction in the online space. Straightforward talk with students to address the growing concern that disengagement compromises academic dialogue and the opportunity to exercise professional behaviors may be a first step. Communities of inquiry are formed by the commitment for deliberate and defensible exchange of ideas. Thus, it is imperative the faculty member insists on protocols for behavior which prevent absenteeism and promote active debate and modeling. Create the value by posing professional or academic decision-making challenges. Introduce realistic applications for the content learned that emphasize that their time investment is easily translatable to careers, professional behaviors and to other disciplines (Selco & Habbak, 2021). For adult-learners who are often employed, students can serve as idea generators for these challenges and add credibility and vitality to the classroom. Faculty can also lean on their own professional and life experiences relevant to the learning. The subsequent discussions thus create a deeper dialogue and provide an example to students of appropriate sharing, debate, and scholarly

decision-making. Especially helpful exchanges include faculty reflecting on professional missteps whereby students can observe professional humility and gain trust in their faculty.

Another approach to exposing students to professional behaviors and to the maintenance of environmental integrity, is by relating explicit expectations at the beginning of the course and thereby initiating informed decision-making. In professional settings this is done successfully through team charters, and also helps in establishing trust among members (Harper, 2019; Salas, Sims, & Burke, 2005). It also sets the stage and guideline for how students interact with one another who are assigned to team projects. Students, like employees, are subject to the same human nature characteristics within group hierarchies, with their own styles of leadership and work habits. As these characteristics are exhibited, student teams may get stalled, be at an impasse or stifled by individual behaviors, such as social loafing (Gardner, 2005; Marks et al., 2001). These are the same behaviors that occur in professional settings. So how should these be managed so professional and ethical behaviors prevail? One way is to address these as pre-dispositional team behaviors that may arise and provide guidelines for these, and what the interventions shall be before the project begins through a charter (Gullette, 2015). Then, students should not be surprised when the student team leader or faculty member takes the pre-determined action. Charters may help teach students how to recognize task-related or cognitive conflict versus interpersonal conflict by how the charter is constructed. Charters can also reinforce the standards for justice and fairness that may be developed jointly by faculty and students.

The literature abounds with explicit recommendations for consistent classroom expectations and the ways in which preparatory methods can work to reconstitute onsite course professional development and learning. In online learning, however, the faculty is under a greater obligation to remain active, preemptive, observant, and proactive throughout the course and program, subverting the environmental pressures for distraction, disengagement, and disruption. Fundamental to all decisions of the online instructor should be the development of trust and respect amongst the participants of the course. Edmundson (1999) elaborated on the need for trust and psychological safety in support of interpersonal risk taking. This risk-taking behavior and vulnerability on the part of students, and perhaps even the instructor, is essential for productive inquiry as well as professional development. It is only through exploration, feedback, and modeling that the desired and necessary professional development can occur, and these activities will occur with greater regularity in an environment of trust and respect.

Related to the instilling of trust in the online course, faculty are also responsible for maintaining an environment which is corrective and free of signs of social degradation and structural disorder. In keeping with and expanding upon Broken Windows Theory, the instructor must be vigilant for signs of disrepair in their course materials, disorder in classroom interactions, and public forms of disengagement or absenteeism. This form of proactive intervention is unique to online learning, where the symptoms of disengagement can spread and deepen without faculty identification and intervention due to the absence of the usual

contextual controls on behavior (e.g., eye contact, peer pressure, faculty body language, hierarchical seating arrangements, etc.). Thus, the online course and associated forms of interaction among peers and instructor become the “neighborhood” or community the faculty are responsible for maintaining. And, likewise, the students and other participants share an equal role in upholding and contributing to the productive environment.

Implications and Recommendations

Implications of this review and discussion may vary depending on university characteristics and student population; however, there are core implications and recommendations which will likely hold true for most contexts. Moore et al. (2017) reported instructors are much more often comfortable with prevention versus intervention strategies. Table 1 contains recommendations which are almost exclusively prevention-based but may be reflective of what behaviors and expectations may be influenced in the online setting. In one study the absence of image and sound from peers discouraged participation and the degradation of engagement which lessens the opportunity to practice professional dialog. (Yeung & Yau, 2021). Overt, egregious behaviors that require active, real-time interventions we propose are less likely in an online environment that remains insulated by the student option to withdraw from engagement or where behaviors and affect are less visible by faculty.

Table 1. Program and Course-Specific Recommendations for Online Teaching

<p>Program-specific</p>	<ul style="list-style-type: none"> • Explicitly describe professional community standards in program materials and formal processes for assisting students who are unable to demonstrate the standards. • Require student and faculty participation in video (cameras on) or other more intimate forms of classroom participation. • Encourage faculty to include both written and oral assignments whenever possible and as technology allows. • Discuss professionalism gaps and training options with your alumni and consider the inclusion of a local externship.
<p>Course-specific</p>	<ul style="list-style-type: none"> • Explicitly describe professional community standards in course materials early. • Reinforce professional community standards in lecture/discussion. • Be transparent. Openly discuss academic fears of an online environment and the importance of shaping and perpetuating professionalism. • Discuss the importance of professional community standards for long-term career success and their contributions to society. • Provide immediate, positive feedback to instances of disengagement.

	<ul style="list-style-type: none">• Create professional modeling opportunities within the context of coursework (ex. faculty reflection on professional persona, ethical considerations, interpersonal communication, etc.).• Develop charters with students at course starts and before team assignments to outline professional behavior and team interaction.• Use examples of professional scenarios frequently to prompt discussion of moral dilemmas, professional conflict and alternatives to address these.
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CONCLUSION

The manuscript was inspired by the growing concern that the online classroom environment may have unintended consequences on professional development and academic inquiry. These consequences are not necessarily the norm but rather the insidious confluence of a more relaxed milieu coupled with rapidly changing cultural vicissitudes. Concurrent with the rapid changes in societal mores, we posit that without deliberate focus on building professional models of behavior in online settings, we may lose robust academic communities of inquiry and their societal contributions. Institutions may have unintentionally failed to recognize that the academic environment has changed by the prolific and ubiquitous forces that permit technology and popular culture to prevail without assessing what may need to be done to protect education's valued intellectual capacity to serve society.

We acknowledge the immutable technological and sociological shifts currently underway in higher education, and we believe true communities of inquiry and professional growth can exist through thoughtful planning and online classroom management. The discussion and recommendations here can revive academic and professional immersion, promoting academic inquiry and the professionalism which is necessary well beyond a student's time at the university.

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Appendix 1

Advice to instructors and students in distance education.

<p>To Instructors:</p> <ul style="list-style-type: none"> • Must understand that the classroom is interactive and student-centered, and that students have much more control and independence over the direction and tone of the classroom • Must step-back and allow more student control of their own learning, and student learning from the cohort and not almost exclusively from the instructor. • Must learn and understand effective CMC communication skills 	<p>To Students:</p> <ul style="list-style-type: none"> • Must be open to learning as much from the cohort as from the classroom materials and the instructor, and thus must be willing to share experiences as well to aid the learning of others • More in charge of their own learning, and are responsible for the amount of work and effort they put into the course • Must be self-disciplined and self-motivated, and mature, about their educational opportunity • Must learn effective computer mediated communication discussion skills
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<ul style="list-style-type: none">• Must set clear expectations for tone and student participation• Be prepared to spend much more time as compared to teaching a traditional face-class• All students participate (not just the verbal few as in the traditional classroom)• Expect to be challenged with research and data-driven questions as students now can do research and collect data prior to response in any given discussion• Must recognize that school and schoolwork is not necessarily the top priority of all students, even more so than in the traditional classroom	<ul style="list-style-type: none">• Must be prepared to be “in class” daily, and perhaps even spending ... much more work and time required than a traditional once-a-week class• Must be prepared to defend and justify what they post as these perceptions and claims will be challenged by both the• cohort and the instructor, with research data not just opinion• Understand that there is no excuse not to participate as there is no communication blocking• Understand that there is no excuse not to participate as there is no communication blocking• The power and control dynamic is somewhat flattened in the online classroom, with added responsibility and authority resting with the student and the student cohort.• Expect to spend time prior to the start of class navigating the various support sites and becoming familiar with the university system.• Do not assume that online will be easier or seamless, or someone else’s responsibility to “fix” issues or problems.
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Note: Adapted from Berry (2018).

CYBERSECURITY THREATS IN THE HEALTHCARE INDUSTRY

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ABSTRACT

The healthcare industry has experienced several issues related to cybersecurity in recent years. Hospitals and health systems have been ground zero. This paper explores the issues in cybersecurity alignment in the healthcare industry. Outdated systems, information technology (IT) infrastructure, and medical devices may be catalysts for breaches by hackers. Acknowledgement of these risk factors allow healthcare system leaders an ability to plan and mitigate crucial system infrastructure against breaches. Researching different ways to solve this issue requires examination of mitigation tactics of different industries specifically ones that hold information on behalf of their constituents. Findings in this paper will add to the body of knowledge around cybersecurity in healthcare.

Key words: health, cyber, security, cybersecurity information, technology, threats

INTRODUCTION

Data breaches in healthcare are growing threats that the industry is facing. Cybersecurity in healthcare involves the protection of electronic information as well as assets from being accessed by unauthorized personnel besides use and disclosure. The three goals of cybersecurity are inclusive of availability of information, integrity and confidentiality. Healthcare organizations possess distinct hospital information systems. These are inclusive of the e-prescribing, practice management support system, clinical decision support system, computerized physician order entry system, and radiology information systems (Abraham et al., 2019). Cyber security breaches can take place through various routes that acts as loopholes. The most prevalent one is the email. It is a primary means of communication that is used within healthcare organizations. Through the email systems, information of all kinds is created, transacted, sent, maintained, and

received (Alharam & El-Madany, 2017). Email security is thus essential part of cybersecurity in healthcare industry.

Phishing is a serious threat to cybersecurity. Of the cyber threats, most are executed via phishing. It involves unauthorized users using malicious links or attachments that are used within phishing emails for unwitting users to click. This ends up infecting their computer systems with malware that can spread to other computers through the computer network (Alharam & El-Madany, 2017). Over the years, the use of phishing emails in cyber breach has been successful thus has led to disclosure of proprietary information.

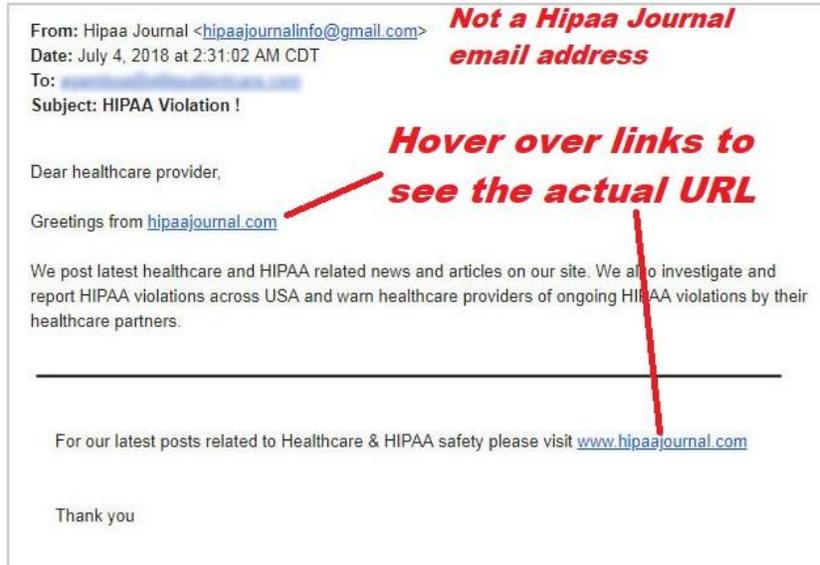
Understanding medical device cybersecurity first calls for recognition that the technological landscape of medical devices has seen a diverse change over the years. Besides, there has been a great advancement of technology in the design of medical devices. Consequently, this has contributed to increased information and network integration abilities. The increased interoperability as well as the interconnectivity of medical devices in healthcare industry has resulted in cybersecurity issues that are a major issue to the industry (Abraham et al., 2019). Such cybersecurity threat lead to an infiltration and infection of medical devices via distinct routes as discussed earlier. The healthcare facilities are thus, majorly harmed through the disruption of operation of medical devices as well as the disruption of the integrity of patient information within a healthcare setting. Some of medical devices are notably life critical. Thus, cybersecurity threats have the ability of disrupting their operation and in turn jeopardize the safety of patients significantly. Besides, the devices and the healthcare systems may have protected health information that can be inclusive of personal information, medical records, as well as hospital payment data (Alharam & El-Madany, 2017). These are extremely sensitive to the hospital and thus are considerable target for spyware as well as phishing attacks that have become more rampant over the years. It is an inevitable need for healthcare facilities to have a clear understanding of the significance of reducing the risks that healthcare industry is prone to as much as cybersecurity is concerned (Abraham et al., 2019). In worse situations, healthcare facilities have had to shut down due to cybersecurity attacks (Alharam & El-Madany, 2017). The issue should thus, be addressed as an issue of top priority for its significance in ensuring a continued operation of not only medical devices but also medical facilities. The consequences have been detrimental ranging from huge data loss to monetary losses besides attacks on medical devices and infrastructure. In the United States, statistics has it that monetary losses because of cybersecurity in the country's healthcare industry are approximated to be \$7 million for a single hospital. For the entire healthcare industry, the monetary loss is estimated to be around \$6 billion (Abraham et al., 2019). Comparative studies have also reported that the healthcare industry lags behind as much as data security is concerned.

LITERATURE REVIEW

Cybersecurity spans across a broad spectrum in today's day and age, whether it is active in daily social media life, or more importantly, our government agencies such our healthcare systems. According to The National Library of Medicine, "cybercrime emerged in the late 1970s as the computer information technology (IT) industry took shape. What began as spam eventually transitioned into viruses and malware (Ayala, 2016). The technology is becoming more sophisticated and coordinated. The health industry is an attractive target for cybercriminals as health data contains sensitive personal and financial information (Kruse et al. 2016). In order for these healthcare facilities to create systems to prevent these incidents from occurring, they have implemented more factor authentications over the years as well as enforcing stricter identification requirements. Even with these protocols, the evolution of our modern-day technology has not only just allowed for better cyber security, furthermore, it has opened new gateway threats for internet predators that society commonly refer to as "hackers." With healthcare being one of the main industries to hold patient information and financial information, it allows hackers, which are individuals who use computer technology to gain unauthorized information to target various systems and programs; those of which include our various healthcare companies. Ransomware is an infection of a machine by ransomware leads to encryption of files and other data (Coventry & Branley, 2018). Cybercriminals then demand victims to pay a ransom for them to get their data for information back. Apart from ransomware, other forms of malware include credential stealers (Alharam & El-Madany, 2017).

Implementation of cybersecurity protocols are still being practiced and continue to improve the collateral of vulnerable patient information. Addressing solutions to reduce the risks of hacking related issues would be safeguards such as workshops for staff to attend to recognize phishing, identity theft, and hacking threats. Phishing for instance, is the use of fake emails to get personal information from people. Staff members could identify the flaws within an email in Exhibit 1.

Exhibit 1



Identifying where and email came from would be the first step to preventing phishing emails from gaining personal information and access to a system. Some emails may come in from the Information Technology (IT) department and may ask for passwords and usernames. This would be a way for the organization to communicate to staff members that unless a ticket has been processed through the IT department, they will not receive emails directly.

Identity theft is usually the result of patients and users who fall victim to phishing incidents (Argaw et al., 2020). As we know, most, if not all, medicinal operations require multiple government issued information to be inputted into the system. “There are two main subtypes of medical identity theft. In the first type the stolen medical identity is used to receive medical services, and in the second type the stolen medical identity is used to commit healthcare fraud” (Gillette & Patrick 2007). Once this information is acquired, fraudulent activity can start to transpire and be a major concern. To help avoid identity theft in the medical field, consumer can start with being able to have access to view their credit report as well as contact their medical care company directly to ensure that whatever tactic that might be taking place is in fact primarily from the company itself before there is a breach involving confidential information (Abraham et al., 2019).

Dealing with digital healthcare services will always have the possibility of data breaches when hackers become involved and get a hold of private information. “Health information is considered to be one of the most attractive targets for cybercriminals due to its inherent sensitivity, but digital investigations

of incidents involving health information are often constrained by the lack of the necessary infrastructure forensic readiness” (Chernyshev et al., 2018). Healthcare Journal has said that “data breaches can harm individuals and organizations in several ways. Besides the huge financial setback that organizations have to deal with in cases of data pilferage, such instances also dent the image of the organizations, marring their reputation and brand value” (Seh et al. 2020). With a focus to prevent these occurrences from arising, the healthcare system would have to create protected operating systems which have already been in play with a secure pop-up browser when online users create their profile. On the other hand, with the medical facility itself, for patient access staff members to have a set user login and have proctored screens when assessing the patient’s information on file would be an effective protection measure to ensure the entirety of confidential documentation.

Overall, cybersecurity has numerous subtypes that can be approached in different multitudes to collectively maintain the protection of healthcare providers and their company, as well as consumer data breaches. With evolving technical software and knowledge will come the negative aspect of identity predators being able to obtain easier access to internal intelligence that medical company systems hold, yet there will also be better improvements to also be able take effective protection initiative of clients’ information.

Proposed Solution

Healthcare settings need to consider a number of steps that are essential in planning for cybersecurity risk management. The first step in managing cybersecurity risk is the identification of crucial stakeholders within the organizations besides having a clear definition of the distribution of cybersecurity duties among the healthcare setting staff (Argaw et al., 2020). Of importance to the management plan is the healthcare setting biomedical engineering department that has the duty of dealing with issues that are specifically associated with medical devices. Also, the Information Technology department is important as it assists in the network infrastructure of the hospital (Coronado & Wong, 2014). The invention of medical devices with advanced integration and information technology capabilities necessitates a collaborative approach of the two departments to safeguarding their devices from cybersecurity threats (Argaw et al., 2020).

Various mechanisms exist for the safeguarding of a network of a healthcare facility from cybersecurity threats. One of the proposed solutions is the use of a virtual local area network (VLAN). This is essential in the limitation of access to the network of a healthcare facility. The technology has diverse functionalities and one of the most essential ones is the access control unit. This works to limit the communication with the main network to particular ports as well as between

particular systems within a healthcare setting (Argaw et al., 2020). Besides, there is need for not only an effective but also an updated antimalware system within healthcare settings. This is important to the detection and the quarantine of threats to the network. It is important to protect the network from the users that are within the network as a possible solution to cybersecurity issues in healthcare industry. The protection commences with the possession of a strong and effective authorization process in existence. Besides, users within healthcare settings need to have reduced amount of access that they need to undertake their duties. Besides, all the device users need to be educated on the fundamental security procedures. These procedures can be inclusive of the use of personal devices such as mobile devices or external drivers such as Universal User Bar thumb drives (Argaw et al., 2020).

It is important to expand the network security of the system as a standard measure and the organization need to familiarize with the same. The standard is the ANSI/AAMI/IEC 80001-1, published in 2010 with guidance for the management of security of the information technology of healthcare settings (Coronado & Wong, 2014). Particularly, the standard has recommendations on issues such as change management, assessments of cybersecurity threats as well as allocation of duties for addressing such risks in a hospital organization. Thus, the risk management techniques that are offered by the ANSI/AAMI/IEC 80001-1 can be significant to benefit a healthcare security system (Coronado & Wong, 2014).

A proper device management plan needs an initiation at the procurement stage. For instance, before a device that is prone to cybersecurity attack is bought, procurement will need to ensure that the device possesses ideal safety characteristics (Ayala, 2016). They also need to ensure that the manufacturer of the device would offer the needed continued support in the course of the usage of the product. It is of utmost significance for a healthcare organization to seek the manufacturer disclosure statement for medical device security (MDS2) form from the manufacturer of the device. The document would offer detailed information on the compatibility with tertiary-party software. The document also provides information on installation of security patches and relevant software updates (Argaw et al., 2020). Besides, the organization need to confirm that software support is offered by the manufacturer for the purchased medical device alongside continued validation for updates that are linked to the particular operating system as well as the antimalware system.

The establishment of a reporting procedure for threats to cybersecurity is an important solution to the issue. According to the HITECH Act, it mandates notification of the office of civil rights should there be a loss of PHI or a suspicion of the same (Coronado & Wong, 2014). Events that are related to the medical device need to be directed to the respective manufacturer besides reporting

agencies such as the Foods and Drugs Association, Industrial Control Systems Cyber Emergency Response Team and sometimes the ECRI Institute (Coronado & Wong, 2014). This ensures a continued exchange of information and education across the healthcare systems as a way of alleviating cybersecurity threats.

Another solution for the issue is for healthcare organizations to have a quality IT at the foundation. Quality IT is a necessity for a health care facility to have a strong security for their information (Coronado & Wong, 2014). One of the important aspects of information technology is its infrastructure. This includes the resources as well as services that are related to the same as well as those that are used to not only deliver but also support IT services (Argaw et al., 2020). For instances, these include the hardware platforms, software applications, networking tools, operating systems as well as the telecommunication tools. The IT infrastructure should have a configuration management as well as a change management. Besides, there should be a logging as well as a monitoring in place. The configuration management would be essential in ensuring that there is an updated record of the IT assets as well as their connectivity. The information technology infrastructure library explains that configuration management entails the identification as well as the reporting of versions of each device and the components that it works with (Ayala, 2016). This would be a major boost to the susceptibility management and patch management. Besides, this kind of management underlies other forms of management such as accounting, faults and even security. On the other hand, change management involves avoidance of undesired service downtime. One of the forms of change plan that can be implemented in a healthcare setting is an incident response strategy (Argaw et al., 2020). Apart from this, there should audits and monitoring of logging records that are strict for fast identification of attacks and acquisition of information concerning potential cyberattacks on the organization (Conaty, 2017).

Preventive and proactive stance is always important as a potential solution to cyberattacks in healthcare industry. In that case, policies have been enacted that encourage manufacturers of medical devices to not only implement continuous lifecycle process but also monitor safety-post marketing of the devices (Argaw et al., 2020). Manufacturers have thus, been mandated by the FDA to ensure that the devices that they produce have the ability to be updated besides having security patches that are applicable across the life of the devices (Coronado & Wong, 2014). Besides, manufacturers are required to proof that they have addressed issues that are undesired and may arise and affect the patients later as the device is being used. They must also share a bill of material with healthcare organizations that purchase medical devices (Argaw et al., 2020). Healthcare organizations are obliged to invest heavily in the prevention of cyberattacks. They can do this through the designation of resources as well early budgeting for hospital cybersecurity.

A risk-based approach would be an effective solution to dealing with cyberattacks in healthcare industry. Notably, the issue is in need of security measures of the highest levels since the risk of cyberattack is inevitable. Assessment of risk is dependent on the recognition of asset that are more at risk of a cyberattack as outlined by the US national institute of standards and technology (NIST) cybersecurity framework for critical infrastructure (Coronado & Wong, 2014). Methods such as vulnerability management are applicable in the identification of potential threats. Besides, risk analysis considers the tradeoffs between risk and benefits and distinct kinds of risks. Besides, it involves an evaluation of the possible effects on the safety of patients as well as operational maintenance. The potential consequences of a risk on data, affect privacy protection, information availability as well as information integrity is also assessed through a risk-based approach to addressing cybersecurity issues (Coronado & Wong, 2014).

Implementation

There is an inevitable need to manage medical devices through the definition of the susceptibilities that are lined to each device used in a healthcare setting. The implementation of this would involve a development of a program that would redefine medical equipment management. The advancement in technology has improved the workflow as well as the management of information activities but has introduced susceptibilities to the security and safety of patients, availability of information as well as cybersecurity (Coronado & Wong, 2014). The implementation of the program will be three-phased and will include risk assessment, mitigation, and continual management.

Risk assessment phase is the first phase and can be conducted in the form of a questionnaire. This would assist in the identification of vulnerabilities that are linked with medical devices at healthcare settings via modifying incoming process of inspection. The integrated systems management program leads to the addressing of HIPAA related issues. Based on HIPAA regulations, as well as the NIST special publications 800-30 and 800-66, a security assessment form would be formulated (Coronado & Wong, 2014). The assessment should also focus on factors such as controls, policies as well as procedures that impact directly on the integrity and confidentiality as well as the availability of ePHI. The risk assessment should be in three categories besides being quantified. The groupings are confidentiality, availability and integrity of medical devices. The three groups should then be combined and standardized on a scale of zero for the lowest levels of risk and to one hundred for the highest levels of risk (Coronado & Wong, 2014). After the risk assessment, it would lead to corrective measures that would be important to the mitigation of the risks that would have been identified.

Mitigation is the second phase of the mitigation and the plan is to be formulated by the biomedical engineering team together with the information technology department. The mitigation plan is developed for every medical system that is noted from the risk assessment (Coronado & Wong, 2014). The preliminary goal of the mitigation plan would be the identification of a possible of inclusion of the medical system in the hospital domain to capitalize on the established safeguard of the hospital. If that would not be possible, the operating system would need an upgrade with the verification of the manufacturer. Besides, development and implementation of manual safeguards would be a necessity (Coronado & Wong, 2014). After the mitigation phase, continued management and monitoring phase would be needed alongside patch management would need an establishment for patient safety to be ensured.

Continual management would follow the preliminary process. There would be a reinvention of the normal preventive maintenance in the course of using the medical devices. This would be important in the incorporation of activities that are linked to ISM program like verification of virus protection as well as the provision of vendor-approved patch management as well as hardware management, recovery from a disaster such as cyberattack, data security, and the enforcement policies and procedures (Coronado & Wong, 2014). The assessment provided common susceptibilities across the medical devices that are linked together via a network. These are inclusive of management of encryptions, monitoring of logins and audits, backups as well as maintenance of operating system. Besides, virus protection is also included and these are were all addressed in the mitigation phase and maintained in the course of scheduled maintenance.

After the implementation of the program, the employees need to be trained. Particularly, the training should entail focus on assessment of risks as well as the usage of various medical devices that are implemented (Coronado & Wong, 2014). They should be trained on how the medical devices store data and the transmission of information. A system administrator should be appointed to offer continued mitigation reports to the safety committees of healthcare organizations. Besides, the system administrator would monitor and record activities of the implemented ISM program (Coronado & Wong, 2014). They would act together with other departments such as the biomedical engineering and IT departments. It should be ensured that the hospital acquire medical devices that are compatible with networks with security features that are correctly documented with a possibility of safe configuration to the particular network. Ongoing management of the medical devices should also be a priority of the administrator besides overseeing the communication that is vital to ensuring success of the ISM program.

CONCLUSION

It is the duty of each individual within the healthcare community to ensure cybersecurity risk management. It is important to understand the current risks that are faced in the healthcare industry as much as cybersecurity is concerned. The recommended solutions and implementations would place healthcare settings to be in alignment with best practices of the industry besides being ready for whichever vulnerabilities that may presented by the advanced technology in medical devices. Medical cybersecurity has been a major issue in healthcare industry not only in United States but also across the world. Increase in risk of cybersecurity has been associated with the continued advancement that provides surged connectivity as well as integration capabilities. Management of cybersecurity is a great responsibility of everyone within the healthcare community. The paper has discussed the topic at length besides proposing possible solutions and implementation.

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CONSUMER KNOWLEDGE OF AMERICAN COLLEGE STUDENTS: A THREE CAMPUS ANALYSIS

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ABSTRACT: American college students across three campuses (n=266) were surveyed in 2017. We examined their understanding of interest rates and typical credit card fees. We found college students were uninformed about the costs of using credit. In addition, we compared by gender, age, and employment. We found gender had no effect on credit card literacy, while older students and employed students were much more literate about the costs of credit. We also examined the enforcement of the 2009 CARD Act, limiting access to credit on campus, and found students are not getting access to credit cards without income verification or a co-signor, as the Act requires. We conclude with discussing limitations and opportunities for further research in this area.

Key words: credit card literacy, survey, college students, budgeting

INTRODUCTION

The credit trap on campus has been set. Colleges get paid to have a credit card company on campus, and many get a kickback from every credit card opened (Irby, 2021). Campuses often cash in big tying your alma mater to a credit card via Affinity card agreements (Park, 2017). For example, the Penn State Alumni Association received \$4.2 million from credit card issuer FIA Card Services (Williams, 2021).

Regulations have had limited effect. The CARD Act of 2009 does not stop credit card marketing on campus, just no physical freebies (Williams, 2021). Credit card issuers know the rules, and have adapted. They avoid violating the CARD Act by making sure physical item giveaways are just off-campus (Irby, 2021).

Students are signing up. Leonhardt (2019) reported college students with a credit card have on average 5.2 cards in 2019, up from 3 cards per student in

2016. In addition, the average balances of college students have increased 32% (Leonhardt, 2019). A big part of the growth is store credit cards.

More credit cards would not necessarily be a problem if students knew how to properly use them. The results say otherwise. Sallie Mae's (2019) report *Majoring in Money 2019* found only 10% of students could answer 4 questions about basic credit card costs. They also found students were over confident, with 59% who think they are excellent or good at dealing with money.

The combination of uninformed and under-informed students, hungry credit card issuers, and complicit campuses create a perfect storm for financial disaster. The lack of knowledge makes students vulnerable to aggressive credit card marketing (Park, 2017). Students who do not know how to use a credit card wisely will pay dearly for that lack of knowledge (Williams, 2021), entrapping students in debt (Park, 2017). Starting out, credit card debt is the last thing a college graduate needs to worry about (Irby 2021).

The convenience cost for credit cards is staggering. In addition to high interest, credit cards are loaded with hidden fees. The average late fee is \$36 and in addition, some card companies raise the interest to 27% (U.S. News & World Report, 2020). The over balance fees are \$35 (White, 2020). The convenience cash advance fee is low (2-8%); however, most cards have a \$5 minimum (U.S. News & World Report, 2020) which means for the convenience of getting \$20 in cash, you must pay \$25. Lastly, many companies charge you a hefty fee just to have a credit card, whether you use it or not. Annual fees for cards often exceed \$100, but are lower or waived for the first year (White, 2020).

Over a third of Americans have experienced a hidden credit card fee (Hutheising, 2019). The problems are especially acute on campus, where most students are making financial decisions alone for the first time.

Attending college is one of the most transformative experiences in a person's life, effectively the watershed between childhood and adulthood (Zhu, 2019). Students are true novice learners about credit cards (Limbu & Sato, 2019; Chen & Volpe, 2002). Credit card debt is a real problem for many US college students (Norvilities, et al., 2006).

REVIEW OF THE LITERATURE

Prior to the CARD Act, easy credit on campus was common, with 83% of college students having a credit card (Nellie Mae, 2002). Cash strapped college students could not resist the temptation of easy credit (Hoover, 2001). Prior to the CARD Act, credit card companies blanketed campus with offers and enticements, including peer referrals to gain more "inexperienced" customers (Warwick & Mansfield, 2000).

Congress enacted the CARD Act of 2009 to slow the spread of easy credit on campus. The CARD Act required students to have either a co-signor or independent income in order to gain credit (Samuelson, 2010). Part of the motivation of this project is to determine if the CARD Act of 2009 was being effectively enforced on campus. Credit card literacy of college students is a good

area to examine since knowledge is most amenable to change (Norvilitis, et al., 2006).

The primary cost of credit is the interest rate (Robb and Sharpe, 2009). College students, however, did not possess a strong credit card literacy (Ludlum & Smith, 2010; Jones, 2005; Warwick & Mansfield, 2000; and Chen & Volpe, 2002). Zhu (2019) did an extensive literature review of 52 studies on college students and credit cards.

Warwick & Mansfield (2000) surveyed 381 midwestern students and found few (15%) students requested a credit card application, but were marketed by the issuers. Further, Warwick & Mansfield (2000) found 71% had no idea what interest rate they were paying, 43% did not know their credit limit, and only half knew their current balance. Warwick & Mansfield (2000) found no differences in credit card attitudes based on age, gender, the amount of debt, or the number of credit cards.

Blankson, Paswan, & Boakye (2012) surveyed students Texas college students (n=600) for their credit card usage and found most of the use is convenience oriented with 66% of students using their card(s) more than three times per month.

Singh, Rylander, & Mims (2018) examined college students (n=400) by payment behavior groupings. Students who pay full balances on time each month were predictably in better financial shape, with higher credit limits and less debt. These students also checked their statements more carefully and had more positive perceptions of credit card issuers.

Friedline, West, Rosell, Serido, & Shim (2017) examined outstanding credit card debt of young adult college students (n=748) and their communities and confirmed that a community's unemployment rate, average total debt, average credit score, and number of bank branch offices were associated with a young adult college student's acquisition and accumulation of credit card debt.

Huston (2012) examined an adult population (n=5,048) and found that most adults (64%) have a credit card, but education level and experience do not translate into lower debt levels.

Ludlum, Tilker, Ritter, Cowart, Xu, & Smith (2012) surveyed US undergraduate students (n=725) and found that 70% had a credit card. However, less than 10% of students paid their credit card in full monthly. Fewer than 15% claimed to know the interest rate they paid. This means most students paid very high (but unknown amounts) of interest. Fewer than 10% knew their interest rate, the late charges, and the over balance penalty on their credit card(s). Less than one in ten students knew the hidden costs of a financial tool they used every day.

Norvilitis, et al., (2006) extensively examined students with a 173-item survey on five campuses (n=448) and found age, financial literacy, and several psychological factors predicted credit card debt. However, gender and GPA did not predict student debt. They found 26% of students did not have a credit card, and 41% only had a single credit card. Also, they found no differences between state schools and private schools on credit card use.

In a survey of England and New Zealand (n=439), Agnew & Harrison (2015) concluded that males have higher levels of financial literacy. Supporting this gender difference, past research has shown that females are more likely to have a budget than males (Henry, Weber, & Yarbrough, 2001). As a result, we wish to examine the following hypothesis:

Hypothesis 1: Males will have greater credit card literacy than females.
Hypothesis 1a: Gender does not affect credit card literacy.

Dean, et al., (2013) surveyed American households of all ages (n=403) and found those who were married were much more likely to have credit card debt. They further found that gender, income level, and race were not significant predictors of credit card debt.

In examining demographic differences, Ludlum et al., (2012) found older students, students who owned stock, employed, married students had greater credit card literacy. Major, having children, gender, and political views did not affect credit card knowledge.

Wang (2011) examined 906 college students from the New York City area and found male students and students without work experience had more credit card debt. Interestingly, females with work experience were more responsible with credit cards.

Scott (2010) examined high school seniors for a decade and found students with a credit card were more likely to be employed. We examined work experience and its influence on credit card literacy.

Hypothesis 2: Students with work experience will have greater credit card literacy than those without work experience.
Hypothesis 2a: Work experience does not affect credit card literacy.

Robb (2011) surveyed US college students (n=1,354) and found that exposure to financial education course did not improve responsible credit card use. Robb (2011) explained that the simple binary view of the course (yes/no) do not yield real information, that instead researchers should look to course grades and course content, and concept understanding, not simply enrolling in the course.

Limbu (2017) examined credit card literacy and misuse among American college students (n=427). Limbu (2017) found credit card knowledge was inversely associated with credit card misuse. However, Limbu's (2017) questions asked for general understanding (I know what an interest rate is) when the current study is concerned not with the concept of interest, but knowing the interest rate they are paying on debts they have now. Limbu advocated for mandatory financial education to cover the hidden costs of credit cards.

Finally, we examined age as a variable, to see if more mature students were more knowledgeable of their credit cards.

Hypothesis 3: Older students will have greater credit card literacy.

Hypothesis 3a: Age does not affect credit card literacy.

METHODS

Participants

Participants were students from three state (public) schools: University of Central Oklahoma, Oklahoma City Community College, and East Stroudsburg University of Pennsylvania.

Our sample was largely traditional students, with an average age of 21.7 years. Most (55%, n=139) of the participants were business majors; 12% (n=30) of the participants majored in liberal arts/fine arts, and 32.7% (n=82) of the participants were math, science, education or nursing majors. The respondents were in the following academic years: first, 5.8%, n=14; second, 23.7%, n=61; third, 29.6%, n=76; fourth, 33.9%, n=87; and 17 graduate students (6.6%). In our sample, females outnumbered males 51% to 49%. Only 3.1% (n=8) of the respondents were married, and only 11 students (4.3%) had children. Most students worked while attending school (67.8%, n=172).

In our sample of college students, only 87 or 34.7% had a budget. A third of students being prepared might sound good, but 100% of our students will be consumers and need to be prepared.

In our sample, students spent 9.14 hours/week studying, 17.2 hours/week on the internet, and 4.3 hours/week reading something other than class assignments. Students in our sample attended religious activities an average of 1.2 times per month.

See Table 1 below for descriptive statistics from the sample.

Table 1. Descriptive statistics for sample surveyed.

Total surveys completed	n = 266	Percentage
Year in school		
Freshman	14	5.8
Sophomore	61	23.7
Junior	76	29.6
Senior	87	33.9
Graduate	17	6.6
Gender		
Males	124	49
Females	129	51
Employment status		
Not employed	82	32.3
Part-time	133	52.4
Full-time	39	15.4

Nationality		
International	16	6
Domestic (USA)	249	94
Total		
Marital status		
Married	8	3.1
Not married	247	96.9
Children		
0	244	95.7
1+	11	4.3

Procedures

A convenience sample was taken from large business survey classes at three state (public) schools across the United States in the fall of 2017. After Institutional Review Board approval, students completed the questionnaire during class time. The survey instrument was voluntary and anonymous. We were best able to minimize bias by using a large group survey, with anonymous results and confidential submissions. A total of 266 surveys resulted. After excluding those surveys missing significant amount of data, some questions had fewer than 266 responses. The text of the questions is in the appendix.

FINDINGS

Credit cards were common on campus, but not universal. 88 (33.5%) of students did not have a credit card. Another 33.5% only had a single credit card. However, 18.6% of our sample had four or more credit cards.

Did students understand their credit cards and the associated fees? Resoundingly, no. Table 2 (below) indicates the percentages of students who did know the features of their credit card. While the percentages are low, the true figures are likely lower. We assumed any student who identified the fee/interest rate was correct. This would tend to overcount the correct responses, which would include those who are confident but incorrect.

Table 2. Credit Card Proficiency

Question	Correct *	Do Not Know
What is the current balance on the credit card you use most?	69.3%	30.7%
What is the interest rate?	36.7%	63.3%
What is the late fee?	34.8%	65.2%
What is the cash advance fee?	14.9%	85.1%
What is the over balance fee?	19.7%	80.3%

*Assumed to be correct, a self-reported measure.

We wanted to examine what demographic factors affected student financial life skills. We ran correlation analyses for relationships for independent variables (gender, year in school, employment, marital status, etc.). We used SPSS version 26 for analysis of our results. We examined five questions on credit card literacy and one question on budgets. We used one tailed t-tests to examine correlations between independent descriptive variables and credit card literacy questions.

For Hypothesis 1, we examined if gender (male/female) was correlated with higher consumer life skills. We found that gender did not correlate with higher awareness of the five credit card literacy questions. We did find that male students tend to have higher credit card payments (t-stat=1.380, df=235, p=.085).

For Hypothesis 2, we found work experience was correlated with higher consumer life skills. Specifically, we found employed students were more aware in four of the five credit card literacy issues. From our analysis, employed students were more likely to know the balance on his/her credit card (t-stat=2.281, df=235, p=.011).

Hypothesis 3 examined whether older students defined by year in school was correlated to credit card literacy. We found that older students were significantly more aware of all five of the credit card literacy issues. Moreover, we found older students were more aware of their credit card balance (t-stat=3.130, df=235, p=.001).

Table 3. Significant results by factor

Question	Gender	Employed	Age
What is the current balance on the credit card you use most?	t-stat=.621 p = .268	t-stat=2.281 p = .012	t-stat=3.130 p = .001
What is the interest rate?	t-stat=.367 p = .357	t-stat=2.963 p = .002	t-stat=2.668 p = .004
What is the late fee?	t-stat=.795 p = .214	t-stat=2.128 p = .017	t-stat=1.574 p = .058
What is the cash advance fee?	t-stat=-.658 p = .255	t-stat=1.719 p = .044	t-stat=2.286 p = .012
What is the over balance fee?	t-stat=-.939 p = .143	t-stat=.704 p = .241	t-stat=2.165 p = .016
Do you have a budget?	t-stat=.753 p = .226	t-stat=1.848 p = .033	t-stat=-.183 p = .226

Bold = statistically significant at .10. df=235

DISCUSSION

We found gender was not significantly correlated with financial literacy. Males tended to have a greater understanding of their credit card balance, interest rate and late fees. Males were also more likely to have a financial budget. However, unlike the Agnes & Harrison (2015) study, there was not a significant

difference relative to female students. This study confirms findings by Dean, et al., (2013) and Ludlum et al., (2012) that gender did not affect credit card knowledge.

Currently employed students were significantly more likely to know their credit card information, with the only exception being over balance fees. Employed students were also significantly more likely to have a budget.

With regards to age, this study is consistent with the findings of the Ludlum et al. (2012) that found older students are significantly more knowledgeable with regard to credit card literacy. There was a significant correlation with each of the five credit card questions. However, while older students were more likely to have a budget, the correlation was not significant.

We wanted to examine marriage as a variable, but we had too few married students to complete any robust analysis. We found married students more aware all of the five credit card literacy questions. However, with such a small sample, such findings should be discounted.

We wanted to see if personal finance courses could influence financial literacy. Since most of our sample were business majors, we would be comparing (for example) a third-year accounting student who had taken personal finance to a third-year accounting student who had not taken personal finance. The addition of a single course (personal finance) to business majors would have minimal impact. Future projects should examine the impact of personal finance on non-business students (liberal arts, fine arts, education).

Lastly, we asked whether our students had gotten a credit card after 2010, when the CARD Act became effective. The CARD Act was an attempt to slow the unbridled issuing of credit cards on campus. Students were tempted with free food and other giveaways to entice them to apply for credit cards, usually unaware of the long-term costs of that decision. The CARD Act required a college student to have verified income or have a co-signor on the account.

In our sample, 144 students indicated they acquired a credit card since 2010. Of the, 144 with post-CARD Act credit, 131 (90.9%) were employed at the time, and 64 (44.4%) had parental co-signors (some had both). Based on these results, it appears the CARD Act enforcement has been a success. The time of students getting credit cards without any income verification or co-signor appears to be gone. This is consistent with findings from Limbu (2017) who explained credit card debt had decreased after the 2009 Credit Card Act. Robb (2011) argued that the CARD Act may not be much of a solution, since it restricts most credit card acquisition until age 21, but does nothing to guarantee students will be financially prepared for credit when turning 21.

LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The biggest limitation of this project is that it relies upon self-reported knowledge. The authors had no way to independently verify the correct answers. As such, these results likely over-estimate students' knowledge of credit card costs.

Respondents might also face some confusion of store cards versus bank credit versus debit cards. Future projects should be clear in defining this difference,

as debit cards may not provide any credit access, but students might not understand the distinction. Further, store cards cannot be used as a substitute for cash, except at one business.

Another limitation is the sample size. This study examined only three campuses, all state schools. Future projects should include other educational institutions (private and for profit schools) to see if differences exist. Since the sample was not random, the ability to generalize to all college students is limited. Zhu (2019) encouraged future studies to include young people who did not attend college and more culturally diverse backgrounds.

A larger sample size could result in more detailed analysis of demographic groups (married students, students with children, as well as religion, race, political views, etc., also undergraduate versus graduate students). In addition, a larger sample size could define majors into discipline areas (accounting, tourism, management, etc.) to see if any disciplines had different views.

Lastly, future projects should incorporate student loans into the discussion. Student loans are a very different form of credit, with heavily regulated terms and subsidized interest, so they lack the punitive fees so common in credit card use. Student loans are also a dangerous form of credit, as the consumer takes loans not to be paid back in the near future, based on completely unknown potential income in the future. Clearly, further research is warranted. This study demonstrates that college students need more information on credit card literacy and having a budget.

CONCLUSION

This project concludes that gender does not affect credit card literacy. This study finds a strong and significant correlation between credit card literacy and age and employment. It appears that life experience and necessity (age and employment) are still the primary drivers of credit card literacy. Of these, only employment is significantly correlated to having a financial budget.

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Appendix One. Survey Questions.

This is a voluntary research project on student views of financial issues. The survey should take approx. five minutes to complete. There is no penalty for refusal to participate. You must be at least 18 years old to take this survey. **DO NOT PUT YOUR NAME OR IDENTITY NUMBER ON THE SURVEY. ALL ANSWERS ARE ANONYMOUS AND CONFIDENTIAL.** If you do not wish to participate, you may hand in the survey form blank. Thank you for your input on this research project.

How many credit cards do you have?

Do you have a credit card in your name?

Have you applied for a credit card in your name since 2010?

---Were you employed when you applied for credit?

---Did your parent's co-sign on your credit card?

What is the Interest Rate (APR) on the credit card you use most often?

What is the Late Fee for the credit card you use most often?

What is the Cash Advance Fee for the credit card you use most often?

What is the over balance fee for the credit card you use most often?

What is the current balance of the credit card you use most often?

Do you have a monthly budget?

What percentage of your monthly budget goes toward housing?

What percentage of your monthly budget is used to pay credit card payments?

How much per month do you spend for your cell phone?

How often do you eat out per week?

What percentage of your monthly budget is spent on eating out?

What year in school are you presently?

What is your college?

1. Business 2. Liberal Arts 3. Fine Arts 4. Other

Black, Ludlum, Xu and Ramachandran

Are you male or female?

Have you completed a course in personal finance?

Are you currently employed (this semester)? 1. No 2. Part-time 3. Full-time

Are you married?

What is your age?

How many children do you have?

How many hours a WEEK do you spend studying outside of class (average)?

How many hours a WEEK do you spend time on the internet?

How many times a MONTH do you attend religious services or meetings?

How many hours a WEEK do you spend reading something other than class assignments?

Are you an international student?

DIRECT MEASURE OF ASSESSMENT FOR THE BACHELOR OF SCIENCE IN ACCOUNTING PROGRAM USING THE PEREGRINE OUTBOUND COMPREHENSIVE EXAM

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ABSTRACT

This research analyzes the results of the Peregrine Comprehensive Outbound Exam being used as a direct measure of assessing the Bachelor of Science in Accounting program at a large University. The Exam is being administered in all ACC435B Auditing II, the last class in the accounting program. A total of 75 students took the exam during April 1, 2020 - October 31, 2021 period. The results showed that students' scores surpassed the aggregate scores of students in the *International Accreditation Council for Business Education* (IACBE) region for Internal Analysis Report and also higher than the aggregate scores of students from the 5 regions under the External Analysis Report.

Keywords: Final Exam, Accrediting Bodies, Internal Analysis Report, External Analysis Report

INTRODUCTION

The Accounting program at the sample University, a non-profit educational institution of higher learning, has been searching for a comprehensive exam to be used as a direct measure in assessing the Bachelor of Science in Accounting program. The Peregrine Outbound Exam assesses the student's knowledge level at the end of the student's program of study. Online direct assessment services for program-level accountability are based on the Common Professional Component (CPC) in business higher education. The CPC based Comprehensive Exam (COMP) is an online student exam that measures learning outcomes and retained knowledge at the academic program level. Program-level assessment of learning outcomes is a requirement for business program accreditation. It can be used for External Benchmarking, an analysis performed by comparing the cumulative results from a school with a demographically similar aggregate data set (Peregrine

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Global Academic Services). The Exam is being administered in all ACC435B Auditing II, the last class in the accountancy program. There were 17 topics taken from the courses in the program. The exam is the Final Exam for the course and is part of the course grade and is acceptable to IACBE. It is beneficial to insert the exam in a course so that the course instructors can help administer the exam and ensure accountability with the examination process. The first Peregrine Outbound Exam was started in April 2020 with 13 students taking the exam and every ACC435B class thereafter.

LITERATURE REVIEW

The Association to Advance Collegiate Schools of Business (AACSB), Accreditation Council for Business Schools and Programs (ACBSP), and the International Assembly for Collegiate Business Education (IACBE), are examples of professional associations that accredit programs of business schools. These accrediting bodies do not specify what assessment test to use. However, business schools are expected to develop an effective assessment of learning processes as a direct measure of student learning. The assessment chosen must be discussed and decided by both the faculty and the school administrators. A major concern of program directors and curriculum assessment committees in business schools seeking institutional accreditation is whether the assessment of learning processes is appropriate and fulfill the requirements of the particular accrediting body. There were just a few articles about the Peregrine experience. But there were some articles dealing with assessment of student learning that are similar to the Peregrine Outbound Comprehensive Exam summarized in the following paragraphs.

Djoundourian (2017) provided an overview of typical learning outcomes in business education and assessment instruments that help measure and test these outcomes. Using data from a recently accredited program, the author investigated the determinants of performance on assessment exams to help identify and evaluate differences between homegrown and standardized assessment instruments. The results indicated that performance on assessment exams whether standardized or homegrown is significantly related to the general performance of the students in the program. The ultimate choice of the assessment instrument boils down to two important variables: the match between exam objectives and institutional objectives including total cost of the instrument (Djoundourian, 2017).

Bright et al. (2019) stated that simulations are used in business education to improve skill attainment and application. However, exit examinations remain imperative measures used for accreditation. This research tested the hypothesis that competencies within and between Glo-Bus as a simulation and Peregrine, as an exam, positively correlate. The research found that while all Peregrine competencies correlate, 11 of 36 possible correlations are present within the Glo-Bus competencies and 47 of 153 possible correlations are present between Glo-Bus and Peregrine competencies. Overall, Glo-Bus and Peregrine scores are weakly, but positively correlated (Bright et al., 2019).

In another study, Hahn & Leslie (2017) explored the results of the Comprehensive Business Exam (CBE) administered to business majors during their senior-year business capstone course. The study results identified students' SAT and grade point average as a predictor of CBE performance, and variables that explain the correlation between CBE performance, SAT score, and grade point average. This study expands the research stream by demonstrating how faculty can use CBE information to more deeply assess student learning at both the course and instructor level than is possible with the Major Field Test for bachelor's degree in Business (Hahn & Leslie, 2017).

Osgerby et al. (2018) investigated Program Focused Assessment (PFA) as an assessment process based on measuring students' attainment of multiple program level learning outcomes. While the literature describes benefits associated with PFA such as improving student satisfaction, student confidence, assessment validity, pedagogy, feedback, student reflection and motivation, there is relatively little research of students' perceptions about PFA. This paper reported on an exploratory study the perceptions of students undertaking PFA at the end of Year 1 of an Accounting and Finance Degree. The study found students had positive perceptions about some of the claimed benefits of PFA (Osgerby et al., 2018).

While studies have found that both accounting and finance majors outperform other majors on the Major Field Test in Business (MFTB) and the Comprehensive Business Exam (CBE), research has not identified the drivers of this performance advantage. The authors examined multiyear

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MFTB and CBE scores and identified both business core course composition and student capability as key drivers of scores on each of these exams. The results provide empirical evidence that accounting majors enjoy a 10.2-point score advantage on the MFTB and a 7.5-point score advantage on the CBE related to additional exposure to accounting, finance, and economics concepts in upper-level accounting and finance courses (Fairchild & Hahn, 2020).

Green et al. (2014) stated that colleges and universities are being asked by accrediting bodies to provide assurance of learning assessments of their students and programs. Colleges of business have responded by using a variety of assessment tools, including the Major Field Test (MFTB) in Business. The authors found that the use of the MFTB in Business for assurance of learning purposes provided no direct evidence of student learning. Moreover, it offers no useful comparative analyses to other business students or institutions. Consequently, it provided no guidance for curriculum or program changes to achieve better learning outcomes (Green, et al., 2014).

RESEARCH OBJECTIVE

The objective of the research is to identify a Comprehensive Exam which will be used as a direct assessment measure of the Bachelor of Science in Accounting program. This is crucial in the preparation of the Program Assessment Review (PAR) done annually at the University. The customized exam and the reports of the results will provide the institution with several opportunities for program-level and course-level continuous improvement outcome. The exam results can be used to: (1) Identify specific strengths and opportunities for improvement of courses, specializations/concentrations, and programs of study. Academic Program Directors can use both the topic results along with the frequency of missed questions data included with the comparison report; (2) Data can be used for the university reports and marketing; (3) Academic Program Directors can use the external benchmarking data for strategic communications regarding the quality of the program; (4) The results of the comprehensive exam can be utilized to fulfill accreditation requirements, considering that almost all accreditation organizations require some kind of direct assessment for academic accountability (Peregrine, 2022).

METHODOLOGY

As early as 2013, the faculty in the Accounting Department had been considering the possibility of adopting the Peregrine Exam as a direct measure of assessing the Bachelor of Science in Accounting program. The Peregrine Outbound Exam is being used in the Bachelor of Business Program and the results of the exam were outstanding. The Academic Program Directors had several meetings with the representatives of the Peregrine team discussing the benefits that NU will achieve in using the comprehensive exam, the cost per student, and the process of integration to the Learning Management system (LMS) of NU which was Blackboard at that time.

The *initial step* was to determine what topics should be included in the exam. Since the exam will include topics in the BS in Accounting program, it is important to include important topics from each course in the program. The Academic Program Directors of the Master of Accountancy (MAcc) and the BS in Accountancy met together and decided to include 17 topics to be included in the exam, since the courses are similar for both programs. Test banks include 300-400 questions per Common Professional Component (CPC) topic. Every test is unique based upon a random selection from the test bank. An exam includes 10 questions for each topic. The CPC topics and overall question content meet the requirements for ACBSP and IACBE direct assessment (Peregrine 2022). The test banks and exam questions have been statistically validated and peer reviewed. Regular maintenance of the test banks ensures reliability and accuracy. Academic officials can use the result to provide input to the program's continuous improvement process. Detailed reporting provides a comprehensive approach for program-level assessment. It was decided to include 17 topics taken from the courses in the program. The Peregrine Comprehensive Exam is the Final Exam for the course ACC435B and is part of the course grade. Peregrine Exam includes all of the topics to be assessed for a specified program. Each topic has 10 questions included within exam, randomly selected from a validated test bank that includes 300-500 exam questions (Peregrine, 2022).

Peregrine Exam in ACC435B – 170 questions over 17 Topical Areas in Accounting:

- Accounting and the Business Entities
- Auditing
- Business Ethics in Accounting

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- Completing the Accounting Cycle
- Corporations: Effects on Retained Earnings
- Financial Statement Analysis
- Governmental and Nonprofit Accounting
- Information Management Systems
- Internal Control and Cash
- Overview of Management Accounting
- Plant Assets and Intangibles
- Receivables
- Recording Business Transactions
- Taxation: Corporations
- Taxation: Individuals
- The Statement of Cash Flows

Instructions to Students:

You are allowed two 15-minute break(s) during the assessment. All questions are timed. You will have 3.0 minutes to complete each question. You must select "Record Answer" to proceed to the next question. DO NOT let the time limit advance automatically to the next question otherwise your response will not be recorded. You cannot go back and review previously answered/unanswered questions. You have 48 hours to complete the assessment and 3 login attempts are allowed. The exam is the Final Exam for the course and is part of the course grade.

The *second step* is to identify the courses where the service will be integrated. It was decided to administer the Comprehensive Exam in ACC435B, Auditing II, the last class in the accountancy program. The exam is neither easy or hard, but rather the exam assesses student retained knowledge at the program level. The exam scores are relative and any grading should be done on a curve. Peregrine has provided a relative interpretation of Student Competence as follows:

Peregrine's Relative Interpretation of Student Competency

- 80-100% Very High
- 70-79% High
- 60-69% Above Average
- 40-59% Average
- 30-39% Below Average
- 20-29% Low
- 0-19% Very Low

If specific academic credit (grade and points) is to be awarded to students based on their exam results, the table above could be used to assign letter grades, extra credit, and/or course points, assuming that the exam is included within a course.

The *third step* is for students to take the exam. The Comprehensive Exam is scheduled on Week 4 of the course ACC435B. Course requirements are adjusted to include the exam, inform faculty, and reports will be provided at the end of the exam.

RESULTS AND DISCUSSIONS

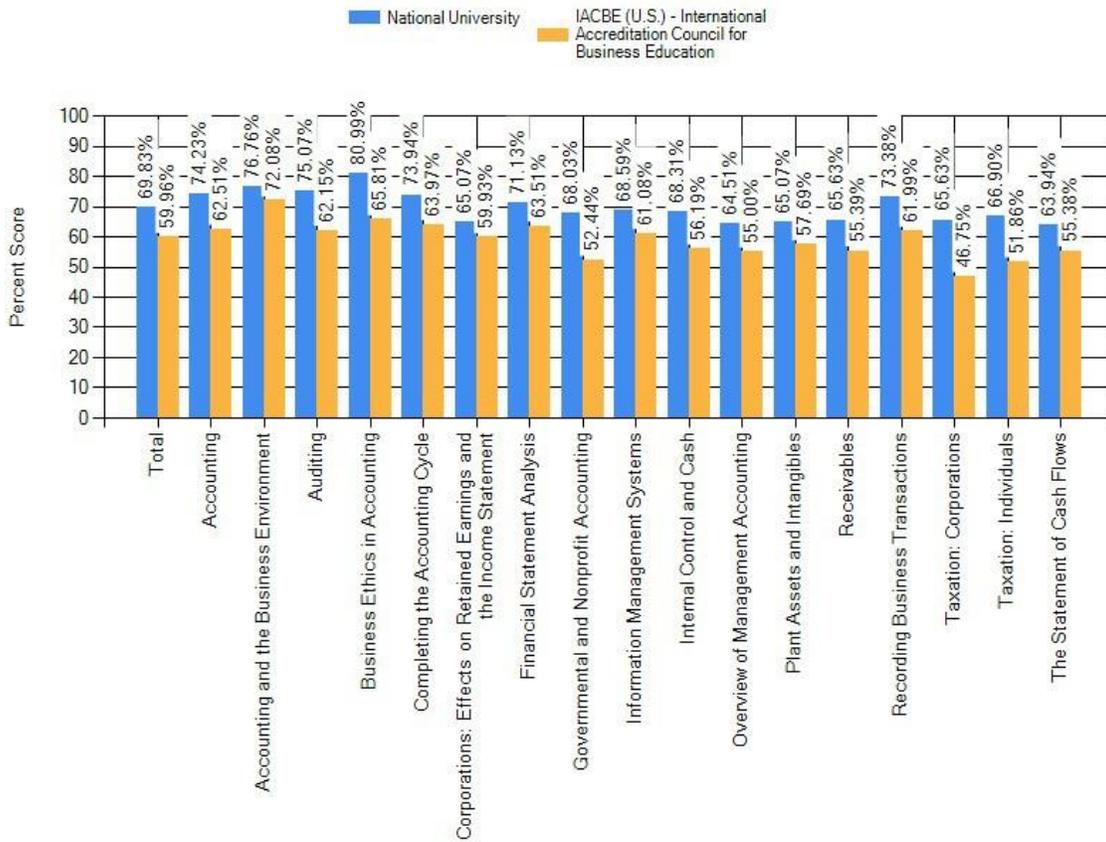
The first Peregrine Outbound Exam was started in April 2020 with 13 students taking the exam. The Exam is being administered in all ACC435B Auditing II, the last class in the BS in Accounting program. There were 17 topics taken from the courses in the program and 10 questions per topic for a total of 170 questions. For each topic there are 300-400 question in the pool to randomly choose from. The exam is uploaded on Week 4 of the course and fully integrated in the grade book and is part of the course grade. From April 2020 to October of 2021, there were 9 classes of ACC435B with a total of 75 students who took the exam. The results were analyzed using (a) Internal Analysis Report comparing exam results of the University students with those of students from universities in the IACBE region. The results were also analyzed using External Analysis Report that included comparison with the aggregate results of students who took the Peregrine Exam under 5 regions: (1) AACSB Members - The Association to Advance Collegiate Schools of Business, (2) ACBSP (US) - Accreditation Council for Business Schools and Programs, (3) Higher Learning Commission, (4) IACBE (US) - International Accreditation Council for Business Education, and (5) Online Delivery Mode.

INTERNAL ANALYSIS REPORT

The Internal Analysis Report of the Peregrine Global Services Academic Services covers the period from April 1, 2020 to October 31, 2021. Total Outbound Test was 71, Academic Level: Bachelors. Aggregate: IACBE(U.S.) – International Accreditation Council for Business Education, Outbound: ACC435B Auditing II.

Table 1 – Outbound Exam comparing the results of students’ performance of the Sample University to the aggregate report on the IACBE (U.S.) – International Accreditation Council for Business Education.

Outbound Exam



Source: Peregrine. (2022): Comprehensive Outbound Exam Internal Analysis Report

Results presented in Table 1 showed that the performance of the University students surpassed those of the students from the IACBE (U.S). In Total, the University’s average score for the 17 topics was 69.83% compared to 59.96% of the IACBE students.

Table 2 – Presentation of Outbound Summary with Percentile Ranks**OUTBOUND EXAM SUMMARY**

O u t b o u n d	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Per cent ile Ran k for This Repo rt's Data set	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Ques tions Offer ed	Freque ncy Corr ect	Num Ques tions Offer ed	Freque ncy Correc t		25t h	45t h	65t h	85t h
Accounting	710	74.23 %	1213 7	62.5 1%	99	59. 97 %	61. 67 %	64. 80 %	68. 37 %
Accounting and the Business Environment	710	76.76 %	247 9	72.0 8%	94	70. 33 %	72. 80 %	74. 52 %	75. 18 %
Auditing	710	75.07 %	1179 1	62.1 5%	96	56. 00 %	61. 60 %	66. 10 %	69. 08 %
Business Ethics in Accounting	710	80.99 %	1029 1	65.8 1%	99	61. 47 %	64. 93 %	70. 01 %	73. 00 %
Completing the Accounting Cycle	710	73.94 %	315 6	63.9 7%	99	60. 39 %	64. 47 %	67. 50 %	72. 00 %
Corporations: Effects on Retained Earnings and the Income Statement	710	65.07 %	248 9	59.9 3%	81	56. 97 %	58. 70 %	62. 44 %	65. 85 %
Financial Statement Analysis	710	71.13 %	115 7	63.5 1%	99	60. 59 %	62. 85 %	65. 45 %	67. 32 %
Governmental and Nonprofit Accounting	710	68.03 %	147 5	52.4 4%	99	47. 38 %	52. 46 %	56. 78 %	63. 50 %
Information Management Systems	710	68.59 %	956 6	61.0 8%	92	57. 54 %	60. 43 %	62. 36 %	65. 18 %
Internal Control and Cash	710	68.31 %	350 2	56.1 9%	98	52. 00 %	54. 95 %	57. 60 %	62. 64 %
Overview of Management Accounting	710	64.51 %	391 6	55.0 0%	99	52. 92 %	53. 85 %	56. 35 %	58. 59 %
Plant Assets and Intangibles	710	65.07 %	400 0	57.6 9%	93	51. 07 %	59. 26 %	61. 17 %	63. 63 %
Receivables	710	65.63 %	212 3	55.3 9%	79	46. 38 %	51. 74 %	62. 14 %	66. 34 %
Recording Business Transactions	710	73.38 %	173 0	61.9 9%	86	55. 50 %	61. 34 %	68. 28 %	73. 20 %
Taxation: Corporations	710	65.63 %	209 9	46.7 5%	99	39. 82 %	45. 01 %	48. 16 %	55. 86 %
Taxation: Individuals	710	66.90 %	613 5	51.8 6%	99	46. 24 %	50. 00 %	54. 88 %	60. 58 %
The Statement of Cash Flows	710	63.94 %	503	55.3	94	49.	54.	58.	62.

Fajardo

		%	7	8%		50	28	75	54
S u m m a r y	1207	69.83	7236	59.96	99	56.88	59.99	62.45	65.18
	0	%	0	%		%	%	%	%

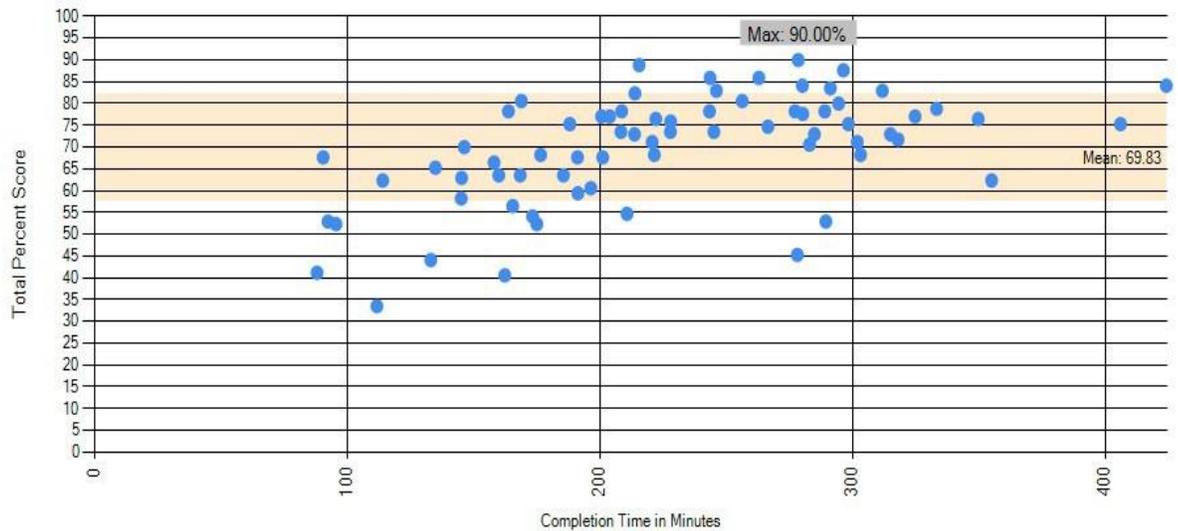
Frequency correct values in this table are rounded for easier display. To see the raw value please select the Excel version of this report.

Source: Peregrine. (2022) Comprehensive Outbound Exam Internal Analysis Report

The above report showed the student performance in each of the topics covered in the exam with an overall average of 69.83% which was much higher than the aggregate average of 59.96%. The report included topic by topic analyses which enable determination of what topics students performed well and those that students performed below the overall average. The data will be very useful as a guide in continuous quality improvement efforts.

Table 3 – Mean and average number of minutes taken to complete the exam

OUTBOUND EXAM Total Result



Sample Size: 71

Mean Completion Time for this Topic (mins): Outbound = 227.27, Mean Score: 69.83%, Max Score: 90.00%, Min Score: 33.53%; Standard Deviation: 12.39

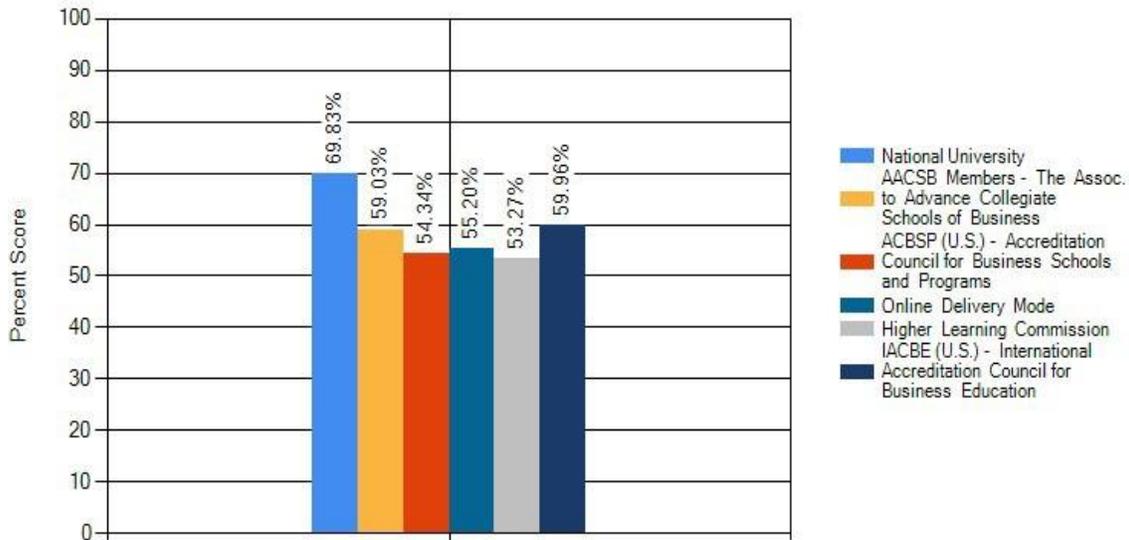
* Results are sorted by number of minutes to complete the exam.

The above report indicated a mean score of 69.83%, Maximum score of 90.00% and Minimum score of 33.53%. The mean completion time was 227.27 minutes which was just 44.5% of the time limit of three minutes per question (170 x 3 minutes = 510 minutes). Students could have spent more time to achieve higher scores. Nevertheless, the scores attained by the University students were much higher than the average scores of students from the IACBE universities

EXTERNAL ANALYSIS REPORT

The External Analysis Report of the Peregrine Global Services Academic Services covered the period from April 1, 2020 to October 31, 2021. Total Outbound Test was 71, Academic Level: Bachelors. Outbound: ACC435B Auditing II. The report included comparison with the aggregate results of students who took the Peregrine Exam under 5 regions: (1) AACSB Members - The Association to Advance Collegiate Schools of Business, (2) ACBSP (US) - Accreditation Council for Business Schools and Programs, (3) Online Delivery Mode, (4) Higher Learning Commission, and (5) IACBE (US) - International Accreditation Council for Business Education.

Table 4 – Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Total



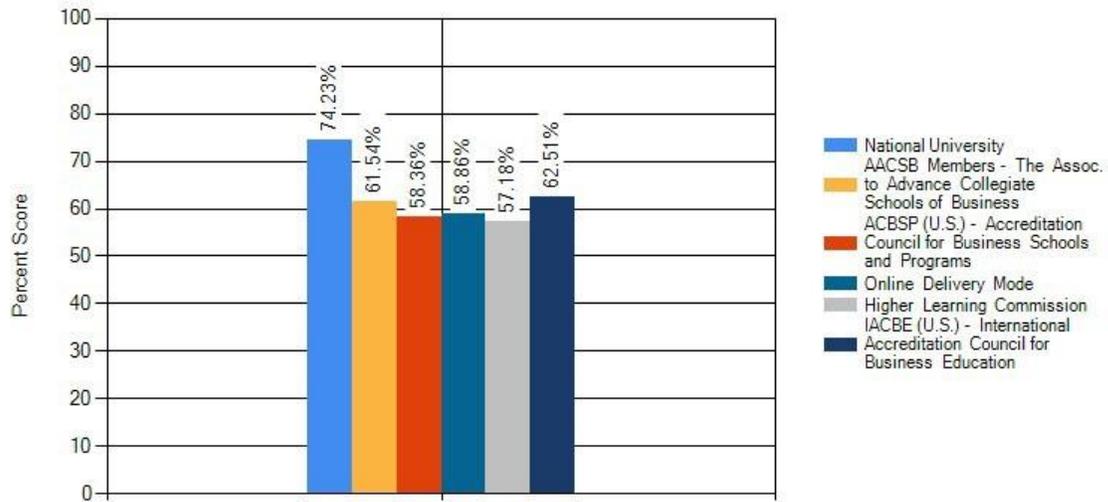
Source: Peregrine. (2022). Sample University Comprehensive Outbound Exam External Analysis Reports

Clearly, the exam results showed that the students from the sample University had average score of 69.83% which was higher than those exam results of students in the aggregate from the five regions: AACSB, ACBSP, Council of Business Schools and Programs, Online Delivery Mode, and Higher Learning Commission, and IACBE.

Table 5 – Benchmarking with 5 regions for the topic: ACCOUNTING

COMPARISON – OUTBOUND EXAM RESULTS AGGREGATE - ACCOUNTING

12.69% Difference with the AACSB



Members - The Assoc. to Advance Collegiate Schools of Business Aggregate

15.87% Difference with the ACBSP (U.S.) - Accreditation Council for Business Schools and Programs Aggregate

Source: Peregrine. (2022). Comprehensive Outbound Exam External Analysis Reports

For benchmarking purposes, comparisons can be made for all the 17 topics. However, as an example, only the topic Accounting was shown on Table 5

above. The data provided in the analysis were indicative that the sample University students outperformed those students from the 5 regions. The table showed favorable results for the Bachelor of Science in Accounting Program on the topic Accounting with an average score of 74.23% which was quite remarkable.

Table 6: Peregrine’s Exam Score Relative Interpretation of Student Competency

- 80-100% Very High
- 70-79% High
- 60-69% Above Average
- 40-59% Average
- 30-39% Below Average
- 20-29% Low
- 0-19% Very Low

Peregrine. (2022) emphasized that there is no such level as a “passing” or “acceptable” score based on the results of this nationally normed exam nor do accreditation bodies expect to see a passing or acceptable level. Academic institutions determine what is passing or acceptable based on associated benchmarks. To encourage students to do their best with the Outbound Exams, an incentive is usually needed. Exam incentives include a direct grade, grading for extra credit if the result is above a certain threshold, or credit for a future assignment/activity within a course. Some client schools also use top scores to determine prizes or gifts. Simply grading the exam based on the following relative grading scale is the best approach to properly incentivize the exam. The above table shows an approximate relationship between the exam results and relative student performance based upon competency level. This table should only be used for relative grading purposes of individual student exams. However, this table should not be used to evaluate exam results for program-level assessment, rather the evaluation of exam results should be based on scores and comparisons of scores with the benchmarks.

Table 7: Effects on the Grades in ACC435B (October 2020 to October 2021)

	Average Peregrine Points	Average Peregrine Percent	Average Overall Grade Percent	Number of Students
Oct. 2020	127.71	75.12%	86.84%	4
Jan. 2021	132.83	78.14%	85.57%	6
Apr. 2021	135.88	79.92%	93.52%	6
Jul. 2021	129.83	76.37%	87.62%	12
Sept. 2021	127.55	75.03%	85.51%	9
Oct. 2021	128.49	75.58%	89.23%	8
		460.16%	528.29%	45
		76.69%	88.05%	

Note: Platform used for all date was Blackboard.

Source: Compiled by the author.

In Blackboard, data prior to October 2020 are no longer available. Adopting the Peregrine Outbound Comprehensive Exam for all Students in ACC435B did not affect the grades of the students. One or two students per class commented that it was not fair to take a final exam that is not just for the current course ACC435B, but for the courses in BS in Accounting program. However, surprisingly, the students performed very well in the Peregrine Final Exam with an average of 76.69% which was considered “High” in the **Peregrine’s Exam Score Relative Interpretation of Student Competency**. In addition, the students’ Overall grade for the course were 88.05% which was a “B+” per University grading system.

LIMITATION AND FUTURE RESEARCH

This study contains data from April 1, 2020 to October 31, 2021. It will much better if more data are available to analyze in ascertaining if the Peregrine Comprehensive Outbound Exam is effective, reliable, and

sustainable as a guide for making changes in the program and course learning outcome and for continuous improvement initiatives. In addition, for benchmarking purposes, only the Topic of Accounting External Reports was analyzed. More topics should be included in future research.

CONCLUSION

The results of the Peregrine Exams were analyzed using (a) Internal Analysis Report comparing with the students of universities in the IACBE region. The results showed that University students' scores surpassed the aggregate scores of students from universities under the IACBE region in the Internal Analysis Report. The results were also analyzed using (b) External Analysis Report that included comparison with the aggregate results of students who took the Peregrine Exam under 5 regions: (1) AACSB Members - The Association to Advance Collegiate Schools of Business, (2) ACBSP (US) - Accreditation Council for Business Schools and Programs, (3) Online Delivery Mode, (4) Higher Learning Commission, and (5) IACBE (US) - International Accreditation Council for Business Education. The data showed that the University students' scores were higher compared to the scores of students from universities under the 5 regions in the External Analysis Report. Analyses both internal and external show the strengths and areas for improvement within the accounting program. The results and reports of Peregrine Comprehensive Outbound Exam provide the academic institution with opportunities for program-level and course-level continuous improvement. Reports are incorporated in the BS in Accounting Program Assessment Review (PAR) as a direct measure of student learning. This piece of research contributes to the literature by providing the process of deciding what assessment test to use that is effective, efficient, and can be utilized to satisfy accreditation requirements.

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TRANSITIONS FROM A FEE-FOR-SERVICE (FFS) PAYMENT MODEL: EVOLUTIONARY TRIPLE TO QUADRUPLE AIM TRANSFORMATION, VALUE-BASED CARE AND DECREASED PROVIDER BURNOUT

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ABSTRACT

In a fragmented healthcare system, the U.S. faces challenges with improving quality, reducing costs, and improving the overall health of the population. With current payment models such as fee-for-service (FFS), negatively impacting care coordination and patient outcomes, healthcare organizations are looking for ways to shift from a volume-based model to a value-based model. This paper will aim to discuss how the FFS model impacts care delivery by reviewing existing literature and providing discussion on current solutions to resolve the problems of the FFS model. Then, a framework will be introduced that organizations can implement to help them adopt a value-based care model including forming a specialized team, identifying healthcare needs, designing and measuring patient outcomes, and evaluating their success.

Keywords: Fee-for-service, payment system, value-based model, outcomes, Triple AIM, Quadruple AIM, IHI, Burnout

INTRODUCTION

With the demand for high-quality healthcare and reduced costs, the United States has seen a tremendous push for a better healthcare delivery system. Even though U.S. spending on healthcare continues to rise, passing three trillion dollars in 2019, the health outcomes of the population rank some of the worst among industrialized nations for having the lowest life expectancy, highest disease burden, and highest

number of preventable hospitalizations (Centers for Medicare & Medicaid Services, 2019; Tikkanen & Abrams, 2020). As healthcare officials look to meet the demand for a better system, they recognize that the source of many of the challenges in our health care system may be the result of economic incentives created by the fee-for-service (FFS) payment model.

Established as a payment model for commercial insurers prior to implementation of Medicare and Medicaid in 1965, the FFS model reimburses providers for each service a patient receives during their time of care. Under a volume-based model like traditional FFS, providers have a strong incentive to increase the number of services provided to a patient, rather than the quality or value of those services. This incentive is especially strong when providers are faced with fee reductions or increased utilization review (Rice, 1983). It is a rational business behavior for providers to offer additional services under FFS payment since the payment is based solely on the quantity (volume) of care. Businesses in general have the same incentive – sell more units of a product or service and maximize revenues. Health care is different from other businesses because of the attention given to the industry over its growth in share of Gross Domestic Product (GDP), now approximately 19.7% of total U.S. economic output (Kurani, et al., 2022).

Recognizing that the traditional FFS model incentive is for increased volume of services while ignoring improved outcomes or reduced costs, the upward trend of health care's proportion of GDP is considered by many to be unsustainable. Insurers and government funders of health care are particularly concerned about this trend, while much of it is based on wasteful or low value care (Cordani, 2020). As a result, provider organizations are being urged to shift from volume to value-based models, where incentives move away from volume of services to payment for maintaining or improving overall health status. Shifting to value-based care models is not only important to the overall improvement of the population's health but also to the sustainability of the U.S. healthcare system.

With many providers still operating under an FFS payment structure, it is important that they recognize the impact it has on care delivery and recognize valid business reasons to transition to a value-based model. This starts with understanding how the FFS model is negatively impacting different elements of care that are important to achieve the Quadruple Aim objectives. Primary among these potentially missed opportunities is reduction of costs created by the business incentives to increase the volume of services to increase revenues and the commensurate increase in risk to the patient from receipt of more treatments than medically indicated.

Since the passage of the Patient Protection and Affordable Care Act (ACA) in 2010, reform efforts have focused on achieving the Triple Aim of Healthcare: “improving the patient experience of care (including quality and satisfaction);

improving the health of populations and reducing the per capita cost of health care” (Institute for Healthcare Improvement, 2012). Later, a fourth element of “improving the work life of providers” created today’s commonly used Quadruple Aim term (Bodenheimer and Sinsky, 2014). The traditional FFS model impacts the way healthcare organizations are delivering care by affecting care coordination and patient outcomes. The adverse impact of the FFS incentive is furthered when providers must exert more effort generating more billable units of service to increase revenues, taking provider time away from leisure or rest. Thus, FFS incentives could also run afoul of this newer fourth aim.

In the provision of care, gaps can exist between the type of services patients require and the coordination involved to obtain comprehensive care. Because providers under this model do not have the incentive to coordinate with other specialists or ancillary services, patients can be left with a duplication of services or unnecessary services, resulting in overutilization and added costs that provide little to no additional health benefit to the patient. The FFS model drives up costs by using an itemized billing system where the care provided is measured in terms of time, intensity and skill required, versus the health outcome that would result from that service.

Since the FFS model allows providers to be reimbursed based on the number of services provided rather than their impact on the patient’s outcome, there may be little to no correlation between payments and the health outcomes that resulted from the services. The impact that the FFS system has on care coordination and patient outcomes affects the sustainability of the healthcare system itself. To improve quality and access, reduce the costs of healthcare, and improve provider satisfaction, organizations will need to develop and accept the business case for shifting from the FFS payment model.

LITERATURE REVIEW

Existing literature on the FFS model, including its structure and implications, reveals varying results and suggestions. While some research articles support the idea that FFS models are here to stay, others point out that the FFS model negatively impacts healthcare delivery and will need continued reform. A study by Dowd and Laugesen (2020), discusses how FFS payments can be incorporated into other systems that encourage efficacious payments, such as setting provider-specific payments. While a study by Miller-Breslow and Raizman (2020) found that, although it has been a traditional payment model for decades, the FFS model still favors volume over value through the way providers are reimbursed.

Miller-Breslow and Raizman (2020) also discuss the process of how providers are paid through an FFS model, and what many consider complex, they describe as straightforward. By using Common Procedural Terminology (CPT), with the

Relative Value Unit (RVU) being tied to physician work and practice expense, a monetary conversion factor is used to turn the amount of an RVU within a CPT code, into a payment amount (Miller-Breslow & Raizman, 2020). CPT can be defined as “a uniform language that accurately describes medical, surgical, and diagnostic procedures”, while the RVU can be defined as “a measure of the amount of resources consumed to provide a particular service”, which together, make up the fee schedule that reimburses providers by commercial or public payers under the FFS model (Gapenski & Reiter, 2016).

Under this reimbursement model, there are no ties to value that show improved patient outcomes or the level of quality in the services provided, paying providers for services that may not have been necessary. To combat this, Doran et al. (2017) suggest tying provider incentives to payments. When first testing value-based models, the first value-based models experimented with the addition of provider incentives to establish baselines for what motivates providers to use the best clinical practices that improve quality and reduce cost. The authors of this study also discuss the risk involved with creating a one-size-fits-all incentive, that does not capture desired patient outcomes. However, if structured correctly, provider incentives can “play an important role of balancing blended payment models” (Doran et al., 2017, p. 460). With several caveats in designing a model that considers patient outcomes, there was an abundance of literature that focused on alternative payment models and solutions to the FFS system.

A common theme among the literature is not having a single solution that all organizations can use when adopting a value-based model. Developing an alternative to FFS will be tailored to specific goals, resource availability, and the interests of the organization. With the enactment of the Affordable Care Act (ACA) came reform measures that aimed towards changing the way FFS payments were made. Many articles recognize the use and success of Accountable Care Organizations (ACOs) as an alternative to FFS because they encourage collaboration, have limited liability on providers, and link quality improvements to ultimately decreasing costs (McClellan et al., 2010; Bowling et al., 2018). Although this kind of model may not work within every care setting, adoption rates for ACOs are among the highest when compared to other alternatives.

Much of the literature suggests that when organizations are searching for viable alternatives to an FFS model, they should focus on how to measure patient outcomes through establishing a unique fee schedule. Rice (1983) noted that lower fees create an incentive to provide a larger volume of services. Guida et al. (2018) took that finding a step further by noting that the structure of FFS fee schedules could lead to the overuse of services and high costs in an FFS model. Instead, they suggest incentives for greater quality could be built into a fee schedule by paying more for services that provide a greater health value to the patient. Left without

such refinement, FFS fee schedules drive revenues based on the number of services given to a patient during care. This increases the risk that patient care services may be duplicated or given in excessive amounts, making the current fee schedule a driver for increased healthcare spending. Along the line of thought that incentives could be built into a fee schedule, Ikegami (2015) argued that providers and physicians are the ones that should design and establish more outcome-based payment values. Allowing providers to set the fee schedule can open the doors for organizations to start with clinical-level improvements that focus on value rather than volume.

Measuring value can be a complex task, as there are many different interpretations of what constitutes value. Teisburg et al. (2020) state that “value in healthcare is measured by improvement in a patient’s health outcome for the cost of achieving that improvement” (p. 682). With several ways to measure patient outcomes, organizations and providers who want to focus on value-based outcomes should focus on patient-reported outcomes (PROs). Similarly, Squitieri et al. (2017) note that PROs have the potential to systematically incorporate patient input for improvement in both quality and cost of care (p. 834). To improve quality from the patient’s perspective, rather than simply adjusting provider reimbursement, organizations will have to clarify the way PROs are measured in their value-based model. The authors also mention the importance of access to real-time data not only for shared decision-making but also to track performance and effectiveness.

Performance tracking in a value-based payment model requires patient care data, available through the use of an electronic health record (EHR) application. For organizations to share patient information across provider entities and better coordinate care (thus reducing duplication of services), EHR systems will need to be interoperable. As performance metrics can be implemented in health information technology (HIT) to capture real-time data and calculate performance standards, organizations may face financial resource constraints in trying to update their health platforms to meet these standards. Along with operational challenges, organizations seeking to move away from FFS should understand that in doing so, they are committing to a new way of thinking. This thinking requires healthcare providers to think about the way they want to measure the value and quality of their care, while also providing patients with the best health outcomes.

The literature provides some good insight into the incentives of FFS payment that have adverse implications on the cost of care and quality. Taking a deeper look into the structure of the model allows healthcare organizations to understand where the problems arise in volume-based reimbursement. With many options for value-based care, including adding incentives to payments and establishing ACOs, stakeholders should focus on models related to the interests, goals, and resource availability of the organization. Although there are certain challenges, like EHR

adoption, many studies find the FFS model outdated and in need of revision towards a value-based model. Overall, there should be more research that focuses on the success and strategies of implementing a value-based model, but researchers have hope that with widespread adoption, this data will be readily available in the coming years.

POTENTIAL SOLUTIONS

Traditional fee-for-service (FFS) payment models have been shown to discourage comprehensive care which affects care coordination and patient outcomes. Due to the complexity of operating under a full-scale value-based reimbursement model, current solutions take the FFS model and incorporate incentives that are based on patient outcomes related to quality and value. For organizations to follow a value-based model, they will need to understand that the problem is not, primarily, in how they charge for their services but in the way they incorporate care management, preventive health measures, and patient outcomes into the care they provide.

Value-Based Initiatives & Programs

The Department of Health and Human Services (HHS) and Centers for Medicare and Medicaid (CMS) are leading the reform efforts, using aspects of the ACA, that focus on paying for the quality of care provided, rather than the quantity. With the intent to tie most reimbursements to a form of value or quality measure in the coming years, healthcare organizations that operate under traditional FFS will need to consider the type of risk they are willing to accept and the various ways to incorporate value-based models. Current value-based models that have varying accountability, care collaboration, and development are Accountable Care Organizations (ACOs), Patient-Centered Medical Homes (PCMHs), and bundled payments. These alternatives to FFS systems can change the way providers approach value-based care by adding upside and downside risk, which can impact their overall reimbursements. Each of these payment mechanisms require establishing different processes and resources. These will need to be evaluated thoroughly in determining which value-based model may be optimal for each provider.

Value-Based Models

Fueled by the concept of shared savings, where providers are paid based on the percentage of healthcare spending saved for a defined population, ACOs are leading the way for organizations to adopt a model that focuses on quality and reduced costs. Combined with FFS payment, financial incentives are rewarded to a network of hospitals, clinics, physicians, and clinicians for coordinating care and reducing spending. By taking accountability for a patient's health, this network of

providers aims to reduce costs by eliminating duplication of services and avoiding unnecessary tests and procedures. There are several ways an organization can approach an ACO. However, there are core principles to incorporate when designing such a model. These include having a strong base of providers that will share accountability for quality and costs across the continuum of care for a population of patients, linking payments to quality improvements, and having reliable performance measures (McClellan et al., 2010).

Another model that focuses on quality and the provision of care is the PCMH. Compared to an ACO, a PCMH is a model that utilizes a primary care physician to coordinate care, including access to preventive services, specialized care, treatment of acute and chronic illnesses, as well as end-of-life decisions (Gapenski & Reiter, 2016). By focusing on care coordination, quality, and safety, this model puts the needs of the patient first, creating a whole person orientation that values the patient-provider relationship. Since patients are cared for throughout their lifetime, involvement in this model will require leadership to analyze if the benefits outweigh investment costs. Organizations that adopt the PCMH model and seek accreditation from entities such as the Joint Commission or the National Committee for Quality Assurance may also be able to earn higher payments from insurers as they demonstrate better patient outcomes. Organizations considering the PCMH as a way to promote patient-centered care should note that expansion of information technology (IT) and finance capabilities will be necessary (Agency for Healthcare Research and Quality, 2021).

The last model to be discussed, which focuses on the efficient use of resources, is bundled payments. Through historical costs in the FFS structure, this model combines the costs of services for a complex treatment, involving multiple providers and organizations, into a single payment. Joint replacement was one of the first Medicare demonstration projects to combine all the services needed for a single procedure or episode of care into a single payment which would include all the pre-surgical clearance, the surgery and post-surgical rehabilitation. The bundled payment model encourages providers involved in the care delivery to look for ways to improve coordination and quality since any reduction of costs can be passed on to the providers and organizations. If costs are lower than the bundled payment, providers paid under this mechanism will have a gain; however, if costs exceed the payment, they will suffer a loss. As with all value-based models, patient outcomes must always be considered as negative outcomes can result in added, unforeseen costs. This model, like every model, has pros and cons within certain care settings, payer mixes, and populations.

By adding incentives to payments that focus on quality, care coordination, patient-provider relationships, cost reduction, and overall effectiveness, organizations are experiencing a shift from volume to value-based models. Before organizations

adopt a value-based model, they should understand that these models come in many forms, with varying pros, cons, and risks. Therefore, each provider should consider and weigh these aspects prior to adopting a value-based model.

Transitioning to Value-Based Care

For organizations to adopt a value-based model such as an ACO, PCMH designation, or bundled payments, they will have to assess the care needs with the population they serve. Since this can be an overwhelming task, organizations will need to focus on identifying the healthcare needs of a population. By establishing the healthcare needs of a specific population, providers can understand what will be required by patients during their time of care including costs, resources, and care coordination. To do this, organizations will need to form a specialized team, design patient outcomes, and evaluate their success.

Proposed Implementation Plan

Implementing a value-based model can be very complex and is one of the reasons organizations are struggling to make a clean transition. Before organizations can adopt a new model, they will need to be able to establish what value looks like within their organization by starting with realistic goals and expectations of their capabilities. This effort must start from the premise that payers are interested in taking on the effort needed to implement and administer a value-based payment structure. The payer must be a participant in the provider's migration away from FFS.

Stage 1: Forming a Specialized Team

The first stage of the framework is forming a specialized team of healthcare professionals, who collaborate, work together to set the standards for value, and deliver quality care. The leader, one of the most influential team members, should be a lead physician or provider who values and understands the significance of patient outcomes. Understanding the importance of value-based models and coordinating patient care, physicians will need to recognize their capabilities to work within a model of this type related to their expertise, knowledge, and available resources. While physicians cannot function alone, other team members will need to be included to have a cohesive group of professionals.

Organizations will initially want to recruit from within to not only budget their costs but have an exceptional understanding of the team members and their skill sets. This can include non-clinical members, such as case managers, care coordinators, legal consultants, informatics managers, and human resource personnel. The team should also include clinical team members, such as registered nurses, medical assistants, specialists, social workers, dietitians, physical, occupational, and speech therapists. Of course, the physician should have a role in

recruiting each of these team members based on the needs of the model and in accordance with the organization's policies and procedures. Now that there is a team of professionals who can work together, they can focus on the next stage, which is identifying the healthcare needs of a patient population.

Stage 2: Identify Needs of Patient Population

This stage involves identifying the healthcare needs of a population the organization serves, especially those populations in which their conditions and required care drive up costs. The team should start with a segment of the population that requires a continuous set of specific care needs—a target population. Starting with a segment of the population that, for the most part, require the same set of needs to improve a condition, will allow the organization to pilot the framework at a smaller scale, reducing the initial burden and complexity. Establishing the care needs of your target population will require a tedious review of the implications of the condition that is selected, including various treatment regimens, intensity and length of care, prescriptions, and specialty referrals. This information can be gathered through various sources in order to have a comprehensive overview of the care needs. For example, data can be gathered from condition-related diagnosis, laboratory, and/or prescription data available through both claims databases and electronic health records (EHRs) (Schmittiel et al., 2017). Once the data on the needs is gathered, the team can focus on designing and measuring patient outcomes.

Stage 3: Design & Measure Patient Outcomes

The next, and most critical, stage when implementing a value-based model, is designing and measuring patient outcomes. Patient outcomes are how organizations, or in this case a specialized team, can distinguish the efficiency and effectiveness of the care provided to the patient. In a value-based model, patient outcomes are also the way payments are incentivized, so they are a critical part of this framework and possibly one of the most challenging. Since the team is focusing on a target population (one condition), patient outcomes should be tailored to the outlined patients. Some of the standard patient outcomes include mortality, safety, patient experience, effectiveness, and timeliness of care. For an organization to move away from an FFS system, there must be patient outcomes that can be measured based on the value within each realm of care provided. Sources that have been highly recognized for their ability to include the patient and their perspectives, are Patient-Reported Outcomes (PROs), and Patient-Reported Outcome Measures (PROMs).

As the names suggest, PROs are any reports of the status of a patient's health condition that come directly from the patient. PROMs describe patients' perceptions of the benefits that they receive from the health system, including the patient's view of their symptoms, functional status and health-related quality of

life (CMS, 2021). In this stage, data collection is critical. This data can be collected from surveys that are administered by providers, the care team, or self-reported by the patient. If current data on PROs are not readily available to the team, there should be a plan in place for how to collect this data. Since there is a target population, surveys can be conducted through the use of mobile devices, computers, or paper, and administered to a group of patients that all require the same care needs.

The healthcare needs of the target population should then be compared to PROMs to see which of them align. Since PROMs could produce subjective results, the team should analyze them for clinical significance when designing patient outcomes that are relevant to the target population. The team can also consider using Patient-Reported Outcome-Based Performance Measures (PRO-PMs) which aggregate information from the patient into a valid measure of performance at the clinician level (CMS, 2021). Since value is measured by how much it costs to achieve quality outcomes, organizations should focus on low-cost improvements to not strain budgets, such as communication between the provider and patient. In doing this, organizations can not only save money but also improve patient outcomes by encouraging treatment adherence and having a strong patient-provider relationship. At first, organizations will want to set small, realistic goals, and continuously evaluate how well they are accomplishing them.

Stage 4: Evaluating Success

The final stage of this framework is evaluating the success of the work accomplished by the team. To understand how successful the framework is and to identify areas for improvement, it is recommended that organizations apply the Plan-Do-Study-Act model (PDSA). This model allows the team to track their success and have a clear vision of what is expected from the start of the framework to the end. PDSA can also be used for each stage of the framework to see if the established patient outcomes or partnerships have room for improvement. PSDA worksheets are available to organizations and can be as simple as outlining what the team planned, what they observed, what they gained, and what they concluded. Since the goals of this framework are to start with small realistic goals, the PSDA model can be used, for example, for PROs that relate to communication. If patients report that they did not fully understand a particular part of their care, the team will know that it is an area for improvement and tailor care delivery to improve communication methods. The team should constantly look for areas of improvement and understand that this framework will not go without a hitch. Adopting a value-based model is a learning experience for everyone involved and will involve trial and error. It should be noted, like any change in a healthcare organization, that it will take patience, teamwork, dedication, and outward thinking to accomplish each stage of the framework.

CONCLUSION

This paper aimed to discuss how the current FFS model negatively impacts care delivery by affecting care coordination and patient outcomes. Current literature on the FFS model shows that although FFS has structural problems, there are ways to incorporate incentives and alternatives that focus on improving the quality of care, reducing costs, and improving the overall health of the population. Although there are challenges that come with adopting a value-based model, this paper discussed current solutions to overcome the problems of FFS and offered organizations a detailed framework by which they prepare their organization to adopt value into their care delivery. As value-based care models are becoming more regulated, organizations will need to look for ways to constantly improve and incorporate value into the care they provide.

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STRESSORS IN HIGHER EDUCATION THAT LEAD TO BURNOUT AND SOLUTIONS TO AVOID IT

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ABSTRACT

Workplace stress in higher education has increased dramatically over the past decade and many consequences have been experienced as a result. Little is understood about the well-being of those employed in higher education and the need for improvement. Enthusiastic faculty members are an asset to their colleges and universities and organizations need to protect their human capital. Organizations have an obligation to review these stressors, the consequences of burnout, and some ways to mitigate the problem. In this paper, the author will discuss some factors that have led to organizational stressors in higher education such as workload, tenure status as well as the tenure process, environmental changes, technostress, and leadership roles. The recent pandemic has even contributed to the stress and lack of employee well-being in higher education. Long term stress can lead to exhaustion and burnout. Burnout can lead to lower engagement, productivity, job satisfaction, quality of work, turnover, and other problems. Stress does not have to be detrimental to employees and the organization. Some solutions to help academics avoid burnout include managing expectations, coping strategies, and organizational interventions will be examined. Organizations can do quite a bit to alleviate the stress for employees and provide perceived organizational support with minimal costs and maximum benefits. A need for perceived organizational support will also be offered as a potential solution. Several propositions are included for further study and review.

Key Words: Higher Education, Stress, Perceived Organizational Support, Burnout, Workload

INTRODUCTION

A job in academia at least until the late 1990's was considered to be a low stress job, but many changes have occurred in the past couple of decades from changes in management, increased competition, changing activities, changing cultures, teaching loads, online classes, increased expectations for research and even administrative responsibilities have increased stress among academics.

Many academics are starting to experience emotional exhaustion, decreased satisfaction, and decreased engagement all leading to burnout (Coetzee et al 2019). In higher education, their greatest asset is their faculty member's expertise and insight which needs to be preserved (Curnalia & Mermer, 2019).

WORKPLACE STRESS IN HIGHER EDUCATION

Workplace stress in higher education is a global issue (Du Plessis, 2020; Rakshit & Sharma, 2016; Mudrak et al., 2016). Increased work demands can lead to longer hours and many additional consequences of workplace stress (Du Plessis, 2020; Kinman, 2001; Steyn & Kamper, 2006). Stress whether personal or professional is an important predictor of productivity and job satisfaction (Berebitsky & Ellis, 2019; Eagan & Garvey, 2015; Gmelch, Wilke, & Lovrich, 1986; Hendel & Horn, 2008, Jacobs & Windslow, 2004). Employee dissatisfaction, decreased productivity, and turnover can result from stress (Barnes, Agago, & Coombs, 1998; Padilla- Gonzalez & Galaz-Fontes, 2015). Work-related stress can influence employee attitudes (Babin & Boles, 1998; Sager, 1994).

SIGNIFICANCE OF THIS TOPIC

Little is known about the faculty well-being in universities. Well-being within the workplace can spill over into well-being outside the university. Workplace stressors can elicit emotions when they are perceived as threat or challenge (Du Plessis, 2020). Stress has many consequences. According to Boyer-Davis (2020), "In the United States alone, the estimated annual value of stress, itself, is more than \$300 billion owing to lost productivity, absenteeism, job turnover, and workplace accidents (American Institute of Stress, 2007). Of the 550 million workdays lost in the U.S. each year to absenteeism, stress is responsible for 50% of them (2007)." In order to retain faculty and reduce faculty stress, it is important to understand the stressors that impact them.

Funding changes have spurred interest in studying faculty well-being. Christensen et al (2020) suggested, Motivated faculty are important in order for universities to meet high quality teaching and research goals (Gappa, Austin, & Trice 2007; Macfarlane & Hughes 2009; Dubbelt, Rispen, & Demerouti, 2016). With reduced funding it can be harder to meet these goals. Numerous studies in different countries note that employee well-being and the availability of various job resources are positively related to employee performance (Nielsen et al. 2015). Providing the needed resources and having motivated employees can influence their ability to cope with organizational change and stress. Although, there are some individual characteristics and personal stress that influence faculty members differently, in this discussion, we will focus on general stressors as it relates to occupational stress in higher education.

LITERATURE REVIEW

Stress is considered to be an external demand on physical, social, cognitive, and psychological systems (Lazarus, 1991). Stress can have positive outcomes in the right amount but often stress can be overwhelming and result in many negative outcomes. There are many sources of stress in higher education.

STRESSORS

Direct stressors can result from lack of clarity, feedback, time constraints, heavy workloads, and pressure to balance work with life (Dey, 1994; Gmelch & Wilke, 1991, Olsen & Near, 1994). Some indirect factors that create stress includes technology changes, productivity expectations, changing student populations, promotion concerns, erosion of tenure, and changing employment conditions (Schuster & Finkelstein, 2006). Whether direct or indirect job-related stress can sometimes, Job related stress can result in decreased productivity such as increasing research expectations (Blackburn & Bently, 1993).

Manager's leadership styles can be considered extremely stress to faculty member while job specific stressors may only be moderately stressful in comparison. Most academics perceive work overload, time constraints, and administrative demands as well career progression and support as stressors. Leaders influence the organizational culture, the perceptions of organizational support, and many aspects of organizational life in higher education so having the right leaders in place makes a difference in the level of stress employees experience. Most of the occupational stress felt by faculty can be considered administrative factors (Du Plessis, 2020).

There are additional stressors that faculty members can experience in the organization related to rank, time in the job, and teaching load. Tenure track faculty tend to have higher levels of stress. Once faculty members become tenured their stress and the longer, they have been in the profession their stress levels may decline some. Each additional class a faculty member teaches results in increased stress although many faculty prefer teaching to other areas of their jobs. There can also be differences in the stress level felt by different employees in different departments. Humanities faculty tended to have more stress than STEM or business (Berebitsky & Ellis, 2019).

WORKLOAD

According to Du Plessis (2020), Many faculty members perceive the organization as a source of stress that impacts their physiological and psychological health including their general well-being. Much research suggest that faculty members are subject to various organizational stressors including

work overload (Mudrak et al., 2016). Higher workloads can result as of increased numbers of students or the pressure to recruit more students, inappropriate deadlines, research and publishing pressures, administrative tasks, meetings, and more. Those on a tenure track that are not tenured or those not on a tenure track may feel a lack of job security.

Sometimes employees feel there is a lack of job opportunities, perceptions of inadequate pay, perceptions of lack of support and resources can also lead to an increased workload perception. Sometimes, in organizations, faculty members may poor interpersonal relationships (Slišković & Maslić Seršič, 2011) and lack of autonomy that forces them to work with others that they don't have a good relationship with. Workload encompasses deadlines, demands, pressures, administrative tasks, and more including the perception of a lack of resources to get the job done. Unfortunately, workloads do not decrease each year and often faculty members take on more or are expected to do more.

Larger workloads could be due to increased demands to research or engage in other service or administrative roles as well as the time it takes to prepare for a new course. Workloads can increase with the need to provide online delivery and the need to keep pace with changing technology (Miller, 2019). Each person's workload varies depending on their skill, availability, and willing to take on many tasks. In many cases increased workloads, unreasonable time demands, and perceived unfairness about those workloads which can lead to burnout (Miller, 2019). Even the size of the organization and the organizational structure can influence the workloads of individual academics.

According to Myry (2020), "There is some research about burnout, workload and emotional exhaustion for faculty members but only a few studies looked at the relationship between workload and teaching in detail. Lackritz (2004) observed that of workload issues, teaching load, time used for grading and reading papers and assignments, and time spent in office hours talking with students, related to emotional exhaustion. It seems that high workloads can lead to emotional exhaustion which could contribute to burnout.

TENURED VERSUS NONTENURED

Tenured faculty tend to have less stress than those on a tenure track. Faculty that are not on a tenure track felt less stress than those that were. Teaching load was related to stress levels. Humanities faculty may feel less stress in teaching than business or STEM faculty who felt less stress in research, job security, and teaching. There was not different in stress levels when it came to service. Social science and education faculty felt less stress in terms of research and teaching than STEM faculty. Humanities professor had higher levels of stress than other professors in all areas except teaching. Doctoral

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universities add more stress than those at Masters or Baccalaureate colleges (Berebitsky & Ellis, 2019).

ENVIRONMENTAL CHANGES DUE TO THE PANDEMIC

In 2020, there was an immediate change in higher education as faculty switched to online teaching. When the pandemic hit, according to (Boyer-Davis, 2020), “roughly 55% of faculty across the nation had never taught an online course, over 70% preferred face-to-face teaching, and 36% claimed that virtual instruction does not yield equivalent learning outcomes as compared to in-person delivery (Bauer-Wolf, 2019; Inside Higher Ed & Gallup, Inc., 2019).” Until recently only 6 in 10 faculty were uncomfortable with and inexperienced classroom technologies such as learning management systems. Only, 40% stated they did not have adequate onsite technical support or professional development to teach online courses (Inside Higher Ed & Gallup, Inc., 2019). These statistics suggested that employees had increased ambiguity, uncertainty, and stress as they had to navigate changes to the teaching environment. Organizations may not have enough resources and training while faculty members may not be ready to use different online learning technologies.

TECHNOSTRESS

According to Boyer-Davis (2020) as well as Tu et al. (2005) technostress can provide negative stress related to the thoughts, attitudes, and behaviors rising from technology use. A variety of physical and emotional symptoms may be exhibited by faculty when it comes to technology “such as anxiety, worry, irritability, headache, fatigue, inability to concentrate, fear, increased cortisol production, frustration, suspicion, obsessive thoughts, and depression (Cox, Griffiths, & Rial-Gonzalez, 2000; Mahalakshmi & Sornam, 2012; Riedl et al., 2012; Wang, Shu, and Tu, 2008).” These negative emotions can provide additional stress and problems in the workplace.

According to Boyer-Davis (2020), “Technostress can worsen role overload. It can create conflicts between work demands and the resources available to fulfill them (Maslach & Jackson, 1981; Tarafdar et al., 2011). “Role overload has been identified as a precursor of poor work performance (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Lazarus, 1991).” Stress related to technology is linked to decreased productivity, job satisfaction, organizational commitment, innovation, and creativity (Brillhart, 2004; Burke and Greenglass, 1995; Hung, Chang, & Lin, 2011; Krinsky, Kieffer, Carone, & Yolles, 1984; Moore, 2000; Muir, 2008; Ragu-Nathan, et al., 2008; Shropshire & Kadlec, 2012; Simmons, 2009; Tarafdar et al., 2011).” With prolonged exposure to technostress can result in burnout (Shropshire & Kadlec, 2012). Technology related stress and burnout can also influence the motivation, performance, and job turnover intentions of faculty members (Simmons, 2009).”

LEADERSHIP ROLES

Serving in a leadership role can be time consuming and stressful so academic administrators can also be candidates for burnout, emotional exhaustion, and experience other stress-related symptoms (Frederick, et al 2020). Those in middle management positions are not able to control their work or various outcomes which can lead to stress and job dissatisfaction (Frederick, et al, 2020). Faculty often have some control, autonomy, time for development that academic leaders may not have and are not able to have those choices as they once had as faculty.

CONSEQUENCES OF STRESS

According to Du Plessis (2020), stress in higher education is linked to job dissatisfaction, reduced performance, poor health, poor psychological well-being, poor relationships. It can also be linked to absenteeism and turnover intention (Kinman, 2001; Pienaar & Bester, 2008; Steyn & Kamper, 2006). Occupational stress can bleed over into the personal life of employees (Slišković & Maslić Seršič, 2011)."

Long term exposure to stress can have negative health consequences, such as exhaustion (Demerouti et al. 2001). Work related stress can create exhaustion of psychological resources, lack of performance, job security and work/life balance worries can lead to high stress (Ablanedo-Rosas et al. 2011; Catano et al. 2010; Gillespie et al. 2001; Kinman et al. 2006; Shin and Jung, 2014; Tytherleigh et al. 2005; Winefield et al. 2003; Zabrodská et al. 2017), even when faculty members are engaged in the work and satisfied with their jobs (Barkhuizen et al. 2014; Shin and Jung 2014). Stress levels influence exhaustion and in turn influence the propensity for burnout.

BURNOUT

Burnout can be viewed as three-dimensional and include exhaustion, cynicism, and lower professional efficacy which are the opposite of employee engagement. Burnout can impact teaching quality, output, lowered engagement, and lower job satisfaction (Cunningham, 1983; Wong, Ruble, Yu, and McGrew, 2017, Yew, Weng & Ramos, 2019; Maslach & Jackson, 1981).

Worked related burnout is often prompted by work overload (Burke & Greenglass, 1995), role- conflict, role ambiguity (Kyriacou, 1987). It can also be prompted by a lack of resources and organizational support (Sabagh et al. 2018). Burnout is moderated by age and perceived organizational support. Burnout and exhaustion are related to their perception of the organizational and whether they

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felt they worked in a supportive environment. The more perceived organizational support the less burnout (Yew, Weng, & Ramos, 2019). According to Yew, Weng & Ramos (2019), “Higher levels of perceived organizational support was found to mediate several positive work outcomes such as lower levels of reported work pressure, lower psychological strain, and increased organizational commitment.

PRACTICAL SOLUTIONS TO AVOID BURNOUT

According to the literature some practical solutions to avoid burnout can be broken down into individual and organizational solutions with the primary focus of this article being on organizational strategies.

MANAGING PERSONAL EXPECTATIONS AND PERCEPTIONS

Different people have different reason for becoming faculty member such as contributing to their discipline, Faculty turnover and employee dissatisfaction can be avoided and can result from a failure to meet individual expectations and perceptions (King et al., 2018). Sometimes that failure includes the lack of appropriate orientation and training, lack of perceived institutional support, perceptions of time demand are tougher, and effective communication is not always prioritized (King et al., 2018).

COPING STRATEGIES

Organizational stress will continue to increase unless organizations implement strategies to help reduce that stress on faculty members. Coping strategies can be adaptive or maladaptive and so it is important to utilize positive coping strategies by faculty members as well (Du Plessis, 2020). Organizations can benefit from recommitting to tenure and shared governance which allows faculty to have a voice and participate in decision making. For organizations, this commitment allows them to capitalize on the knowledge and expertise of the faculty members. Tenure provides some protection for faculty and provides a sense of job security (Curnalia & Mermer, 2018).

ORGANIZATIONAL INTERVENTIONS

According to Du Plessis (2020), “Possible interventions concerned with reducing or eliminating stressors inherent in the workplace include:

- redesigning the academic’s job to increase academic freedom and autonomy;
- providing adequate resources and support for academics to accomplish goals;
- providing more constructive feedback on job performance;
- allowing flexibility to meet family and personal needs;
- allowing time off to focus on career development (e.g. research and

- development leave);
- providing a more supportive work environment;
- consulting and communicating on matters that affect them; and
- reducing the administrative burden by engaging support staff.”

Each of the things on this list are areas that organizations could focus on from providing autonomy, resources, support, performance feedback, flexibility, and communication. Fixsen (2018) suggest that soft skill learning and development programs can influence performance management, work commitment, and self-care. According to Rivari et al. (2020), Meaningfulness involves providing worthwhile work and is positively related to faculty self-identity, organization citizenship, and resilience. Meaningfulness can help to ward off burnout (Mitra and Buzzanell 2017). According to Ciulla (2015), Meaningful work has a positive influence on “personal growth, self-efficacy, self-esteem, belongingness and well-being” as well as other positive outcomes including “improved job performance (Fried and Ferris 1987; Grant 2008), job satisfaction (Wrzesniewski et al. 1997), engagement, and well-being (Soane et al. 2013).” Meaningful work is a key area that needs to be explored and promoted by organizations as well. Another area that organizations should explore involves employees perceived organizational support.

PERCEIVED ORGANIZATIONAL SUPPORT

Perceived organizational support is based on organizational support theory (Eisenberger, Huntington, Hutchinson & Sowa, 1986; Shore & Shore, 1995) and states that employees develop global beliefs about whether or not the organization values their contributions and cares about their well-being. Perceived organizational support suggests that the organization is ready to recognize and reward increased work efforts as well as meet socio-emotional needs of employees. It assures employees that they can complete their jobs effectively and that they can deal with workplace stress (Rhoades & Eisenberger, 2002). Based on organizational support theory there are three forms of favorable treatment that employees receive from the organization including fairness, supervisor support, and organizational rewards and job conditions. Some of the things that relate to the perceptions of organizational rewards and job conditions are: recognition, pay, promotions, job security, autonomy, and training. It can reduce role stressors, reduce strains, improve performance, reduce withdrawal behavior, and create a desire to remain for employees. Based on perceived organizational support employees also have increased commitment, job satisfaction, positive moves, and improved attitudes toward their jobs. (Rhoades & Eisenberger, 2002).

It can be demonstrated through various interventions as discussed in this paper and also through provision of training and resources. It can result in many positive factors including increased employee engagement, organizational

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commitment, reduced turnover, reduced absenteeism, and many other positive benefits.

Because stress can lead to stress and burnout can have negative consequences for both employees and organizations, there is a need to find solutions to reduce stress and burnout. Since work engagement is the opposite of these conditions, organizations need to further explore how to encourage employee engagement. Whether by providing resources, supervisor support, or stimulate employee motivation. Schaufeli and Bakker (2004) suggest that workplace characteristics encompass both intrinsic and extrinsic motivation. Intrinsic motivation can be developed by encouraging employees to follow research interests. Supervisor support and having some influence over their work can be intrinsic motivators for employees (Gagne' and Deci 2005; Olafsen et al. 2015). Extrinsic motivation can come from rewards such as working toward promotion, receiving structure, professional development, and resources. Both intrinsic and extrinsic motivation can help employees become more engaged in their work (Tien and Blackburn 1996). Resources and supervisor support are also related to job satisfaction, work engagement, and reduced stress. Therefore, the role of academic leaders in creating positive work conditions at academic workplaces appears to be indispensable (Machovcova & Zabrodska 2016). Faculty members perceive support from their supervisors differently and different managers provide different levels of support (Goodall 2006). However, support is needed to reduce stress.

PROPOSITIONS

When it comes to the organization, the author suggests the following propositions:

Proposition 1: Perceived organizational support will lead increased work engagement.

Proposition 2: Increased work engagement will lead to reduced stress and burnout.

Proposition 3: Increased work engagement will lead to reduced burnout.

Proposition 4: Perceived organizational support will lead to decreased stress.

Proposition 5: Perceived organizational support will lead to decreased burnout.

Proposition 6: Decreases stress in the workplace will lead to decreased burnout.

Each of these propositions should be further explored and tested in the context of higher education. In many organizations, an increase in perceived organizational support as demonstrated through leadership behaviors and other factors can be beneficial to the organization. Kouzes and Posner's five leadership practices have been shown to increase employee perceived organizational support (Hyatt, 2007).

IMPLICATIONS FOR HIGHER EDUCATION

Stress exists within all occupations and organizations. Stress seems to be growing in higher education for faculty members. Stress can be harmful to both employees and the overall performance of the organization. Stress can result from perceptions of high workloads, technology, whether employees are tenured, and more. However, stress does not have to have a detrimental effect on the organization, and it can also be reduced using several measures. Organizations can provide resources, support, autonomy, feedback, and appropriate communications. Organizations can also seek to motivate faculty members whether intrinsically or extrinsically through the development of perceived support, meaningful work, engaging employees, and providing the needed resources and rewards.

CONCLUSION

Different shifts in policies, differing work demands, and many additional stressors have occurred over the years (Martinez, 2019). Further research is needed on faculty stress at it relates to roles and responsibilities (Berebitsky & Ellis, 2019). Turnover can have an impact on individuals, coworkers, and departmental budgets. There are many costs associated with turnover such as the cost of recruitment and other potential disruption (Martinez, 2019), In many colleges and universities there is a culture of overwork as academic loads do not show the full range of work commitments of faculty members. Different interventions including work engagement and perceived organizational support should be further explored by organizations.

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