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Government Sponsored Healthcare Through the Lens of Sociological Theory

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WRITTEN FOR SOC 200: INTRODUCTION TO SOCIOLOGY

Government-sponsored healthcare is health insurance that is partially or fully paid for by the government. Sixty million people or about 18.4% of the United States population were enrolled in Medicare in 2020 (*U.S. Health Care*, 2022). The United States is one of the only developed nations that does not provide government-sponsored healthcare to all its citizens. This has caused government-sponsored healthcare to become a controversial topic in politics. The United States' bipartisan system allows for the divide of people against it and for it to be greatly stratified. This is why there is a compromise of the nation's poorest and oldest only getting access to it. Although there are debates on whether the United States should provide government-sponsored healthcare, it serves a purpose in society while also contributing to inequality.

Functionalist Perspective

"As conceived by Talcott Parsons (1951), the functionalist perspective emphasizes that good health and effective medical care are essential for a society's ability to function" (*Sociological Perspectives*, 2016). This is the functionalist view of healthcare according to Parsons, a functionalist theorist. This means that healthcare should be available to all people to have an effective and functioning society. Parsons thought of sickness as a kind of social deviance because it prevented a person from fulfilling their duties, and this is against the societal norm (Milton, n.d.).

Low-Income Healthcare

There are many functions that government-sponsored healthcare serves in society. One such function is that it provides healthcare to low-income people. Low-income individuals and families cannot afford private health insurance, as the average monthly

health insurance cost for a family of four is $1,557 (Masterson, 2022). To put that into perspective, the threshold for a family to be low-income in 2020 was $52,492 for a family of four (*How Poverty*, n.d.). This is not affordable or sustainable for low-income families. Low-income people are still people, and people need healthcare. In 2010, 26,100 people between the ages of 25 and 64 died due to a lack of healthcare (*Dying for Coverage*, 2012). This again shows that government-sponsored healthcare is an integral part of society.

Creates Employment Opportunities

Government-sponsored healthcare serves another purpose by creating jobs. There are over twenty million jobs in the healthcare and social assistance sector (*Industries at a Glance*, 2022). This industry is projected to grow at a rate of 7.1% in the next five years (Fleron & Singhal, 2022). The healthcare industry provides jobs for many people, so its function is not only to provide people with employment but also to provide people with life-saving care.

Keeps the Low Class in the Workforce

The final function that will be discussed is that government-sponsored healthcare keeps the lower class alive. Lower-class and low-income people are the backbone of a capitalistic society. Low-income jobs tend to be essential workers, like a cashier at a store or a restaurant worker. Without low-income workers, society and capitalism would not run as smoothly. Health is vital to a functioning society, and without it, society will die off.

Conflict Perspective

The conflict theory perspective of healthcare is that it focuses on the inequality of healthcare access and quality of care (*Sociological Perspectives*, 2016). Conflict theorists also believe in the idea that the upper class, the people with money and power, run the healthcare system and make sure that they receive high quality coverage while simultaneously making sure that low-income people stay subordinate because they lack access to the same high-quality care. Healthcare inequalities do not just include wealth, they include gender, race, and sexuality. A Marxist view on

healthcare is that the main goal of the healthcare system is not health but profit and that will continue to be held up by the rich.

Social Class and Wealth

Wealth and class play a large part in a person's health. "High income white males outlive their low-income counterparts by 7.9 years" (Williams et al., 2010). This disparity is caused by the increased stress that comes with having multiple jobs just to pay bills. Stress can increase the risk of heart disease and cause physical and mental symptoms, lowering quality of life (*Chronic Stress*, 2022). Because of their low income, they receive lower quality care and therefore endure their condition longer. Government-sponsored healthcare puts people in lines for major procedures, and these lines are not nearly as big when it comes to private insurance. Low-income people are consistently disadvantaged when it comes to healthcare.

Gender and Race

Gender and race are also major factors that create inequality within the healthcare system. Women who are low income are more likely to express concerns about the quality of their healthcare. Indigenous and Black Americans received care that was inferior to White Americans 40% of the time (*Health*, n.d.). There is substantial evidence that White Americans receive better quality healthcare than their Black counterparts. This remained true even when age, income, and social status was changed (Phelan & Link, 2015). Systemic racism is still present in the United States and continues to oppress and be a detriment to people of color.

Inaccessibility

A lot of doctors do not accept government-sponsored healthcare or only accept a small percentage of patients who have it. This makes healthcare more inaccessible for low-income people. Low-income people who live in rural areas are even more disadvantaged because they have to travel further to find doctors who will accept their government-sponsored insurance. Some low income people do not own a reliable car or have gas money to spend to go to appointments that are an hour away from their house. This means that they are less likely to go to regular appointments and

receive preventative measures for health issues. This, in turn, causes the chance of getting preventable illnesses on top of non-preventable and causes them to suffer more illnesses in general.

Conclusion

In conclusion, both the functionalist and conflict theories provide insight on the functions and inequalities of healthcare and government-sponsored healthcare. It is beneficial but also detrimental to low-income people to have government-sponsored health insurance. In the functionalist view, it provides healthcare to the poor and keeps them in the workforce, causing the economy to run smoothly. In the conflict theory, government-sponsored healthcare is riddled with gender, sexuality, and race inequity. Rural areas are also overlooked and unaccounted for. Healthcare is essential for society, so government sponsored healthcare is essential as well.

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Drug Dependency: Construction of a Rehabilitation Program

ASHLEY DEESON

WRITTEN FOR ENG 111: COLLEGE COMPOSITION I

Drug and/or substance abuse have been ongoing issues for decades and have been rising indefinitely, leaving people concerned for their families, friends, and community, and the user's health. Even in the 1900's, drugs were used quite a bit. Fast forward to now, drugs have become more available to user's more so than ever. It is easy to access any drug or substance a person would want. With the increasing amount of use comes increasing numbers of deaths, hospitalizations, as well as homelessness and crimes. The drug and substance abuse has increased so much, it is time to take a more valuable approach decreasing the amount. The more valuable approach would be to add more facilities with resources within such as: housing, counseling, work, support groups, drug awareness courses and more.

A survey was conducted in July of 2023 for the Gloucester residents for feedback upon this issue on drug and/or substance abuse. Out of 31 people who responded to the question "Do you know somebody close to you or in general that has suffered with drug and/or alcohol abuse?", 93% responded back with a yes and some even mentioned who they knew that was facing this issue. Only two people from that survey said "No", they do not know anybody suffering from drug, or alcohol abuse. The author found that since 2019, there has been a 5% decrease in Virginia for overdose deaths (2,490 people in 2021) and hospitalizations (22,398 people in 2020) that have increased 5% since 2021. Eight out of ten (79%) drug overdose deaths involve fentanyl, fentanyl analogs, and tramadol (Virginia Department of Health, 2021). When asked the question "Do you believe more affordable, reliable, available drug/substance abuse facilities with resources within (school, counseling, housing, and work) would decrease the abuse in the community?", almost 70% agreed that would be the route to go.

A personal interview with a Gloucester resident who has a prior substance abuse history was conducted in July of 2023. This resident elaborates on how substances changed her life, and what she believes would decrease substance abuse. She agrees that having more affordable, reliable, and available facilities with resources would decrease the amount of drug and/or substance abuse within the community. In the interview, the Gloucester resident was asked "In your own opinion, how can we decrease drug and/or substance abuse within the community?" and the lady's response was "In my opinion, we can decrease alcohol and substance misuse within the community by destigmatizing addiction. Allowing people to reach out for assistance and not being discriminated against in the process of doing so. We need to change the way we speak about addiction and realize it's a chronic illness and does not just go away. It takes hard work, support, safe housing, health, community, and people knowing they have a purpose. Recovery is self-directed and a choice" (Anonymous, personal interview, July 20th, 2023).The lady's response relates back to the solution provided by the author, so this is another way for the author to persuade her solution.

One of the biggest obstacles to cross is getting people to understand how drugs affect one's mind and body. Drugs are so potent and can ruin somebody's life indefinitely or leave them fighting for their life in the hospital. The book, Drug Use in the United States, goes into detail about how drugs destroy one's mind and body: "Some drugs can be toxic to the brain, with cocaine, methamphetamine, MDMA, inhalants and alcohol, shown to destroy neurons or their axons, disrupt normal blood supply, or alter gross brain morphology" (Madras. 2014, p. 2.3.2.). the source goes into detail of the percentage of deaths from drugs. This statistic rate is credible and recent as of 9 years. "There are approximately 578,000 drug-related deaths each year, 23% of the 2.5 million deaths in the United States annually" (Madras. 2014, p. 2.1.3.). That rate is high for each year, and one can only assume it gets higher each year with the rising amount of drug and/or substance abuse.

When people visit the hospital, blood tests are done, as well as scans and autopsies and whatever other testing is needed. Drug-related deaths are certainly evaluated and tested to see what the exact cause was. Büttner (2021) stated that "Opioids, particularly heroin (diacetylmorphine) are the most frequently consumed substances causing death in drug users mainly by suppression of respiratory centers in the brain stem" (p. 23). This gives you a small glimpse into how certain drugs kill one. Each drug has different effects on one's mind and body. Individuals also tend to mix drugs, or even do multiple drugs at a time which you can imagine plays a big role in their health. As she also stated "Nevertheless, polydrug abuse (multiple drugs of use) is associated with a high risk of severe adverse effects and lethal outcome" (Büttner. 2021, PP. 23-87). It is very important that people know the outcome of their actions and seek help as soon as possible.

The community needs to work together to form a system that will help the ones battling these addictions.. Natarajan (2017) claims "The most effective treatment programs offer a combination of therapies and other services that attend to age, race, culture, sexual orientation, gender, pregnancy, type of drug use, co-morbid conditions (for example, depression, HIV), parenting, housing, and employment, as well as physical and sexual abuse history" (p. 23). Having treatment programs with more services and therapies would help the community decrease the user's dependency upon drugs. Facilities that treat the users with more drugs are just getting them more dependent upon drugs and/or substances which increases their urge to use more. Natarajan (2017) also claimed, "Clinical research of the past few years, which has shown that drugs differentially affect men and women has suggested that gender-based or gender-sensitive substance abuse treatment programs should be developed" (p. 23). As stated previously, drug treatment programs with resources should be developed upon each person and their needs, each person is affected differently and requires different services without pushing more drugs upon them.

Having more reliable, affordable, and available facilities with resources within would decrease the number of deaths, and hospitalizations. These facilities would need to have counseling as one is using drugs and/or substances for one or some variety of reasons. Having school would benefit those who are using it so they can have a reason to stop. They would be focused on a career and not focused on using. Housing is another great resource to add to the facilities, many users lose everything they have, so having them in a stable environment would be helpful for them to get back on their feet. Work-release would also be a beneficial program to those enrolled in the facilities. Giving these people an opportunity to work, come home to a stable and safe environment as well as having counseling and support groups would make a tremendous difference tremendously. As stated before, people need to feel comfortable speaking of their addiction, and find the cause as well as having many opportunities available to them. Facilities could even add in a 30-day assessment to determine each person's decreasing dependency upon drugs and/or substances as well as doing weekly drug testing, or daily.

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The Impact of Modern Entertainment

LOGAN HAMILTON

WRITTEN FOR ENG 112: COLLEGE COMPOSITION II

It is clear that movies have changed substantially over the years, but have they gotten worse or better? In my opinion, the movies and TV shows that Hollywood is creating are progressively getting worse. This is due to a number of causes that have arisen in the past couple of years. Firstly, the recent movies lack originality and rely on a formula rather than inspiration. Secondly, Hollywood is focusing too much on representation in their movies rather than actual storytelling. Finally, the consolidation of the film and tv industry leads to less creative liberties.

When Hollywood first got its start it struggled to find its footing. Even considering people adored the nature of a film, the sales were not high. "The early 1970s, before pay TV and video cassettes, were probably Hollywood's darkest days" (Waterman, 2009, p.2). Without domestic use, only the privileged few could actually see a movie. This continued for a few years until eventually Hollywood started to gain ground. It then began its climb to world prominence and became a staple of the movie industry. After that came the golden age of cinema where Hollywood was at its peak and completely dominated the world stage. Now Hollywood has become rigid and predictable, but still maintains its domination of the industry.

In recent times the movies have lacked originality and or inspiration. They are continuously produced without any regard for how good or bad the movie may be. An article on The Current stated, "Should we leave the past behind and only allow only what is new and pretty and shiny to be let in? ...I think not" (*Why old movies are Better*, 2009, para.3). In other words we shouldn't give up on the old style of film, but rather build upon it. What I think should be done is a mixture of an old style film where the directors are allowed to take risks, and some parts of the new style where they find an audience. However, the current movies stick to a particular formula

and do not stray from it because they are afraid to take risks. Older movies were always a risk because they didn't know if anyone would watch it let alone what type of audience they wanted. That's why older films have a much larger theme than that of a modern film. They all had an original story to tell with a lesson to be learned or an action to be taken. Of course they're not all great, but they have that certain inspiration that most current movies lack.

Along with that modern movies over emphasize the inclusion of other themes that do not contribute to the plot in any meaningful way. Hollywood wants so badly for its characters to be looked up to, that they skip the development of those characters, leaving them to not have to struggle or develop over the course of the film. An example most critics would use is Rey from the Star Wars universe. She has little to no character development over the course of the trilogy and is viewed as a sort of 'Mary Sue' due to the way she just happens upon a solution instead of working for one. As was said in the article Why most modern movies suck,"Worse than bad movies — that is, movies that fail in terms of basic storytelling"(Brinkhof, 2022, para.8). Not being able to tell the audience how the character got to where they are is an obvious sign that the writing has no clear direction. In some movies and Tv shows there are characters that don't even have a purpose in that story. They are just there to be the token inclusive character and that is their only quality. That character is heavily emphasized on having that quality and nothing else. If you want people to get used to seeing different types of characters, the worst thing you can do is shove it down their throats and expect them to like it.

Nevertheless the continued consolidation of the film industry continues to make this worse. In the words of Pauline Kael (2003), "There are direct results when conglomerates take over movie companies"(pg.268). When a smaller film company is taken over by a larger one, then all their assets and content can be used for the gain of the larger company. This also can allow that conglomerate to change or alter the content in any way that they so please. More than likely those movies will be worse off

allow that conglomerate to change or alter the content in any way that they so please. More than likely those movies will be worse off because of that. For example, the purchase of LucasArts by Disney caused a drastic change in the writing of their movies and shows. Many wanted Star Wars to be left alone, but obviously that was not what ended up happening.

  Obviously there are those who do not agree with these claims. In opposition to my argument, some may argue that there are new and original movies. In some cases this would be correct but the amount of original movies are few and far between. Another argument is the inclusion of representation is helpful in making people feel heard and more accepted. However, the way Hollywood handles it makes it clear that they are trying to appeal to that audience but it can sometimes make the situation worse for those groups. It is always best to include diverse characters and give them a purposeful role in the plot instead of forcing them in. A final objection to my claim could be that the combining of film industries can be beneficial to the companies in the long run. If one company has control then others won't be able to create their own content independently, and will be forced to create what the industry wants instead of their own projects. That may be beneficial for them, but in the long run the movies will all start to blend together instead of standing out on their own.

    Ultimately there is still the question of if movies are worse or better than they used to be. In the end I still believe that the movies of the modern era are worse than the older movies. They are worse because they lack originality and rely on a formula rather than inspiration. Furthermore, Hollywood is focusing too much on representation in their movies rather than actual storytelling. Consecutive to this, the consolidation of the film and tv industry leads to less creative liberties. Thus, movies of today have many problems and that has contributed greatly to their decline in quality.

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Examining Autochthonous Alternatives to Tropical Coconut Coir for Shoreline Engineering

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WRITTEN FOR CHESAPEAKE BAY GOVERNOR'S SCHOOL

Introduction

The Chesapeake Bay region is experiencing some of the highest sea level rise rates in the world due to relative rise combined with land subsidence. Over the last century, sea level in eastern Virginia has risen between 0.30m and 0.59m with 53% of this rise exacerbated by land subsidence due to groundwater withdrawal and settlement of the bolide crater (Hardaway et al., 2017). Over the same period, the average relative rise in the coastal United States was 0.25-0.30 meters, and the average global relative rise rate was 0.15-0.20 meters (Sweet et al., 2022). In coastal Virginia, these fast rising sea levels are causing shoreline erosion at an increased rate which requires homeowners and communities to turn to engineered solutions like hardening with rip rap or more natural approaches like living shorelines. Virginia Senate Bill 776, signed into law in April 2020, directs the Virginia Marine Resources Commission to preferentially permit shoreline stabilization projects that utilize living shorelines unless the project would explicitly benefit from a different approach (Lang, 2020). This decision was made because rip rap and bulkheads are hard structures that provide no benefit to wildlife and the local ecosystems, and they actually accelerate erosion in areas adjacent to the structures (Reston Association, 2006).

Living shorelines are "soft" engineering strategies that reduce erosion by reinforcing the coastal edge using natural materials meant to maintain the shoreline area, while also improving coastal habitat quality (Bilkovic et al., 2016). Living shorelines utilize structures built with natural materials like coconut fiber coir logs,

instead of concrete, rocks, and rip rap for an organic stabilization solution. The dense fibers of coconut husks slow the movement of running water and allow loose sediment to settle out. Coir logs are most successfully used in coastal areas with low salinity and minimal wave action; these areas include riparian and creek shorelines, riparian buffers, and high marshlands. In these settings, Coir logs completely degrade after 3-5 years which makes them a useful addition to installations that include planting living vegetation like Spartina grasses (Hardaway et al., 2017). Coir logs stabilize the sediment while the grasses develop stronger root systems that anchor sediments. However, used independently of other living shoreline methods, coir logs are limited in their ability to serve as a long-term solution to erosion.

While coconut fiber coir logs are a great solution for erosion control in living shorelines in Virginia, coconut coir cannot be sourced anywhere near the location of use. Further, the demand for a myriad of coconut products (ie. coconut water, oil, and milk), including coir, is driving the increase in coconut production in tropical countries like Brazil, Malaysia, and Indonesia (Bhandalkar & Deshmukh, 2019). Driven by demand for agricultural products from coconut and palm oil, deforestation of coastal rainforests is a huge problem across the tropics, contributing as much as 20% per year to global greenhouse gas emissions (Pendrill et al., 2019). Deforestation emissions combined with greater greenhouse gas (GHG) emissions related to shipping these coconut products around the world, drive further sea level rise. In an attempt to combat sea level rise-induced erosion caused by warming oceans and increasing glacial melt, coastal communities around the Chesapeake Bay region will need to purchase more coir logs from abroad, feeding the global warming positive feedback loop that is fueled by the excess carbon emissions from this vicious cycle.

In order to break this global trade-deforestation-global warming-driven cycle, communities should explore opportunities to take advantage of their own local natural resources. In the Chesapeake Bay region, the use of more locally abundant, autochthonous materials like pine needles, corn crop residue, and the reeds of invasive Phragmites australis should be explored as replacements for coir. Pine

needles are plentiful in the Chesapeake Bay region and are a byproduct of the forestry industry. Loblolly Pines (Pinus taeda) are abundant throughout the Coastal Plain and Piedmont regions of Virginia, and pine forests make up about 20% of Virginia's forests ("Virginia's Forest Composition"). Southern pine tree species will typically drop the weight of their tree trunk or more in pine needles annually (Howard, 1973). These pine needles have a waxy cuticle that prevents any moisture from entering the needle anywhere other than the stomata or damaged areas.

Corn residue is naturally resistant t.o decomposition which challenges farmers to find new purposes for the leftover corn stalks after harvest, or leads them to shred and bury the stalks (Sherwood, 2018). Corn stalks take longer to decompose than other crop residues due to the high Carbon to Nitrogen ratio, plant breeding for stalk strength, and the application of fungicides during growth. Corn stalks have a C:N ratio of 80:1 (Heard, 2012). This in combination with fungicides decreases the efficiency with which decomposers can break down the corn stalks. This results in almost double the residue left over compared to other crops like soybeans. The predicted yield of corn residue grown in reduced-till and no-till land in Virginia by 2030 ranges from 1-3.5 dry tons/acre with 450,000 acres used for all purposes of corn production in 2022 (Perlack & Stokes, 2011; USDA, 2022). With much of this yield unwanted and unused, corn stalks are exceedingly available.

The last candidate for coir fiber replacement is the invasive marsh reed, Phragmites australis, which grows across coastal areas of Virginia, as it is well adapted to all kinds of aquatic environments (USDA NRCS). Phragmites australis can be found growing in tidal and non-tidal marshes, wetlands, and riparian edges (Tilley & Loren, 2012). Phragmites australis is also adapted to thrive in high salinity and anaerobic environments and reproduces sexually with wind/water dispersed seeds and vegetatively with asexual rhizomes spreading wide around the parent, allowing it to create monotypic colonies wherever it is introduced. As a result, Phragmites australis rapidly develops colonies that create extensive root systems that stabilize sediments. Unfortunately, invasive Phragmites australis also suffocates native plants and has an

overall harmful effect on the local ecosystem. Due to its fast-growing and invasive nature, Phragmites australis is highly abundant and would be easy to harvest sustainably.

This study compares the relative decomposition of local, eastern Virginia-grown pine straw, corn residue, and Phragmites australis reeds to traditionally used, foreign-sourced coconut coir fiber. The degradation rate of the local test materials (pine straw, corn stalk, Phragmites australis) was tested relative to coir in the coastal environment, and pine straw biologs were manufactured as a coir analog to determine the effect of deployment strategy on material breakdown. This project seeks to determine if local, autochthonous materials like pine straw, corn stalk residue, and Phragmites reeds can compare to foreign, allochthonous coconut coir in erosion control products, thereby reducing the carbon emissions associated with deforestation and transport of coir from coconut plantations thousands of miles away.

Hypotheses

H_{01} : The difference in the initial mass and final mass of pine straw, corn, Phragmites australis reeds, and coir will each not be significantly different.

H_{A1}: The differences in the initial mass and final mass of pine straw, corn, Phragmites australis reeds, and coir will each be significantly different.

H_{02} : The decomposition rates of pine straw, corn, and Phragmites australis reeds in the dry experiment will not be significantly different from coir.

H_{A2}: The decomposition rates of pine straw, corn, and Phragmites australis reeds will be significantly different from coir.

H_{03} : The level of deterioration of the pine straw bale and pine straw sock manufacturing methods will not be significantly different from that of coir in the intertidal and subtidal marsh ranges.

H~A3~ : The level of deterioration of the pine straw bale and pine straw sock manufacturing methods will be significantly different from that of coir in the intertidal and subtidal marsh ranges.

The independent variable for the first experiment is the type of material tested, and for the second experiment, it is the manufacturing method of the biolog. The decomposition of material is the dependent variable measured as a change in mass. Coconut coir material is the control in both experiments. General environmental conditions (duration of exposure, drying times, and rinsing methods) were the same for all treatments and were constant for both experiments.

Materials and Methods

In order to determine the effects of weathering on the organic substrates, 15 bundles were manufactured per material, coconut coir, pine straw needles, corn stalks, and Phragmites australis, for a total of 60 bundles. These bundles weighed around 40.00g each. Each bundle was secured with jute twine and dried to a constant weight indoors for 3 weeks before being finally weighed and placed outside in a 2.2m2 area on July 17, 2023. In this "dry" experiment, the bundles were exposed to sun, rain, and wind, but were not exposed to the tidal estuarine environment over the entire test period of 24 weeks. Every month after deployment, until the final sampling on December 1st, 2023, three bundles per material were subsampled by removing them from the field, rinsing them off, and leaving them to dry for 7 days indoors to determine the change in mass per month. They were then massed and stored away until the end of the experiment for analysis.

To determine the effect of the manufacturing method on degradation in the actual tidal estuarine environment, 27 additional bundles were manufactured using coir and pine straw. The first method bundled pine straw needles into a small "biolog" tied with jute twine at 7cm intervals weighing 86.00- 136.00g. The second biolog method stuffed pine straw needles into a sock with thin mesh netting weighing 126.00-266.00g. The third method tied coconut coir fiber into a biolog with jute twine at 7cm

intervals weighing 86.00- 136.00g. The second biolog method stuffed pine straw needles into a sock with thin mesh netting weighing 126.00-266.00g. The third method tied coconut coir fiber into a biolog with jute twine at 7cm intervals the same as the pine straw log weighing 95.00g-166.00g. The masses of the logs varied due to the density of material packed into the logs, but the relative size of each biolog type was the same. Each biolog was 40cm long and 8cm in diameter. The bundles then were dried indoors for 2 weeks before being massed and placed outside on October 5th, 2023. To deploy this experiment, 3 logs of each manufacturing method were staked into the ground in the supratidal range of a salt marsh, 3 in the intertidal range, and the last 3 were staked into the marsh's subtidal zone. After 10 weeks, all of the bundles were collected, rinsed off, and left to fully dry indoors for 5 weeks before being weighed again.

Data were analyzed graphically using Excel, with error bars representing one standard deviation above and below the mean value. The data for the dry experiment were analyzed statistically in Excel using a t-test assuming equal variances with a 0.05 alpha comparing initial and final mass, and comparing coir to experimental substrates.

Results

In both experiments, coconut coir outperformed the autochthonous materials and bundling methods. Coconut coir had the lowest average percent mass loss of -6.61% after the 24-week exposure period in the dry experiment followed by pine straw -15.91%, corn residue -18.03%, and the Phragmites australis reeds -22.95% (Figure 1). Similarly, for the wet experiment for manufactured biologs, the average percent change in mass was best for coconut coir at 4.04%, followed by the pine straw bales -5.51%, and the pine straw sock -6.86%, after the 8-week exposure period (Figure 3).
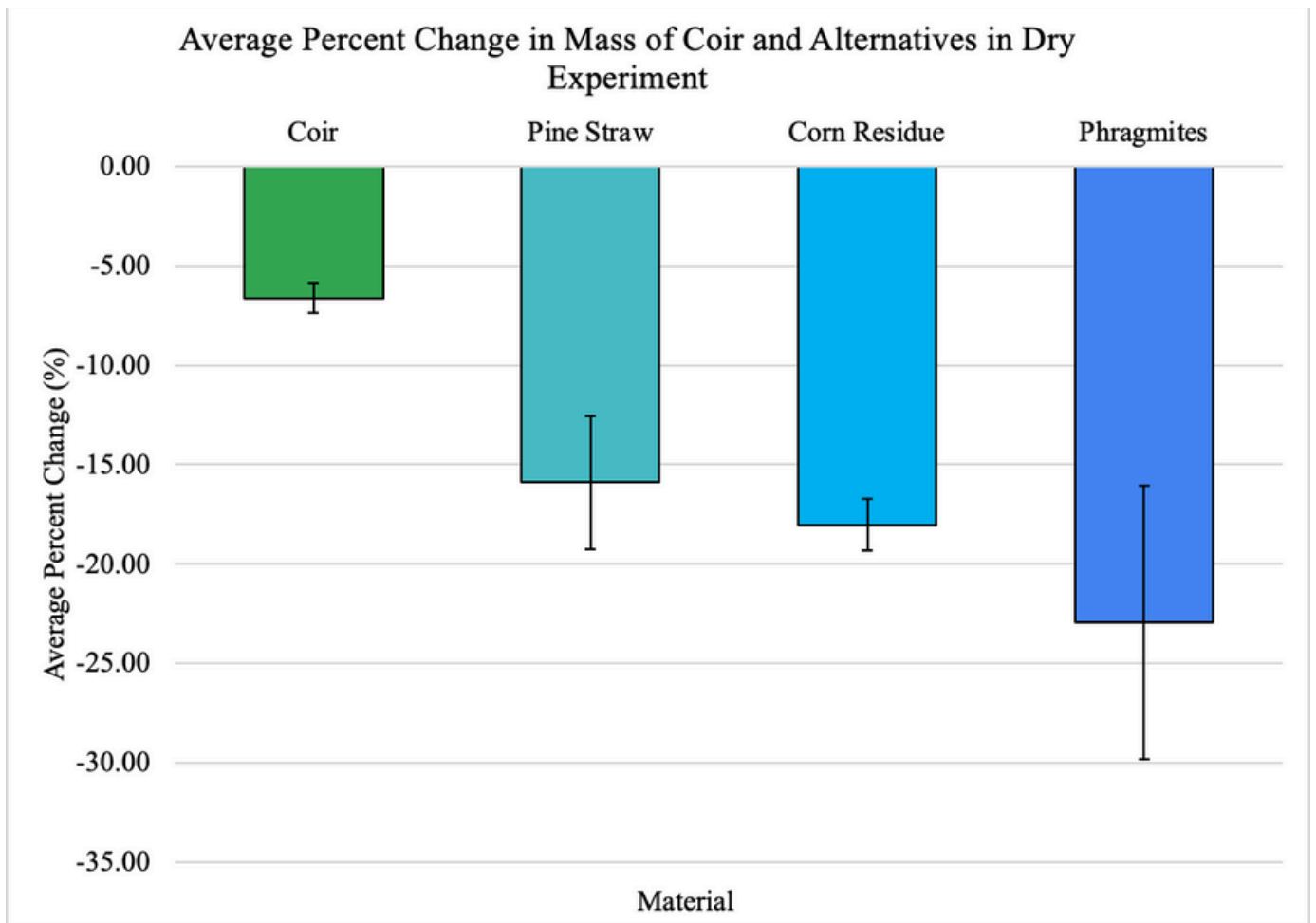
Figure 1. The average percent change in the dry experiment after 24 weeks: Coir -6.61%; Pine Straw -15.91%; Corn Residue -18.03%; and Phragmites -22.95%. Error bars are standard deviation. The coir and pine straw did not experience significant mass loss while the corn and Phragmites australis did (Table 1).

Statistical analysis of material degradation over the last three months of the exposure in the dry experiment, using a t-test assuming unequal variances (Table 1). Pine straw was not significantly degraded compared to coir, $p > 0.05$, until the 5-month mark (Figure 2). Phragmites australis was significantly degraded compared to coir, $p < 0.05$, by the 3-month mark. Corn was significantly degraded compared to coir at the 3-month mark, but was not significantly degraded relative to coir during months 4 and 5, however they were very close to the 0.05 alpha.
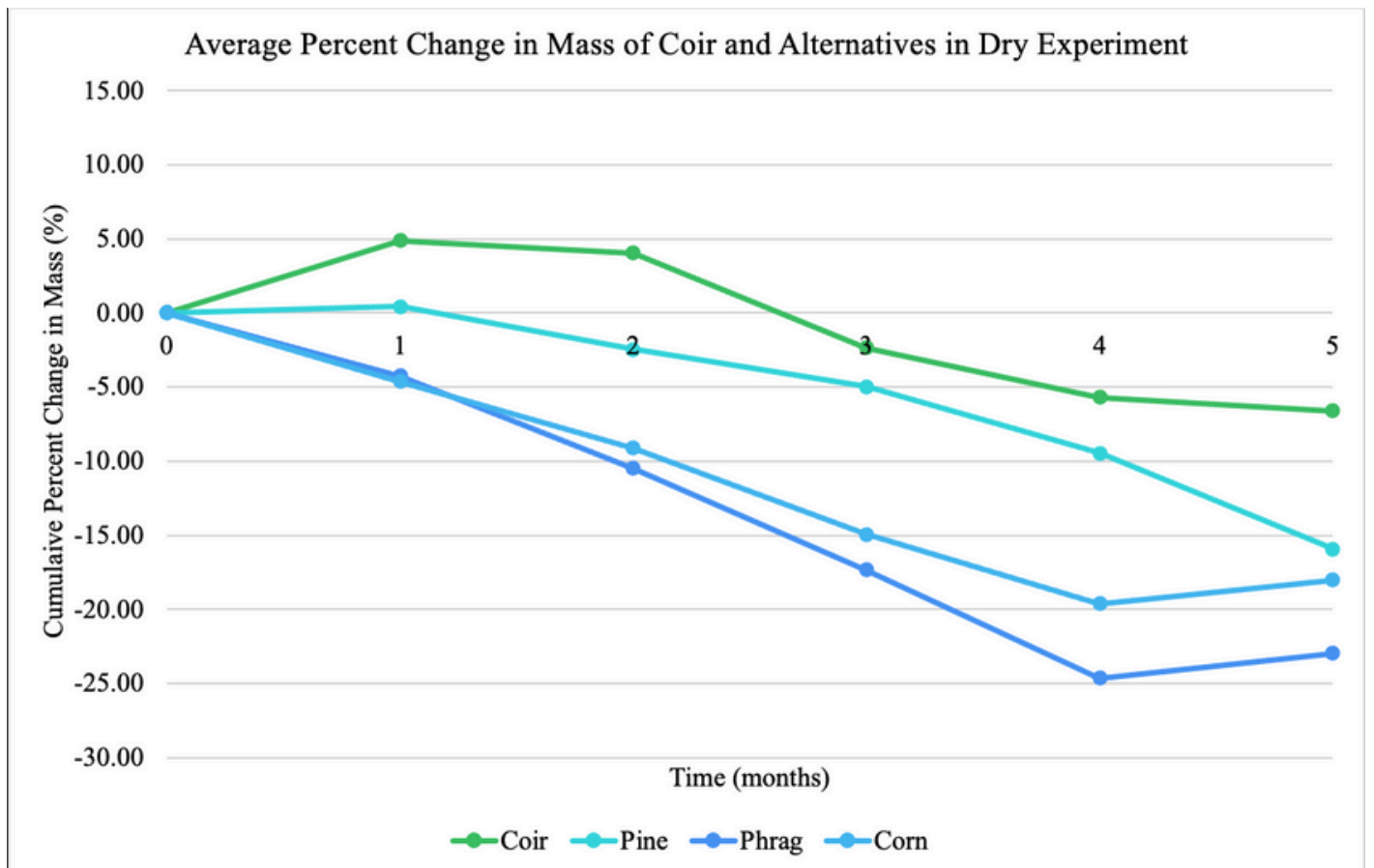
Figure 2. The average percent change in mass of coir and autochthonous materials at each sampling date in the dry experiment. Coir experienced the lowest cumulative change in mass of -6.61%, followed by pine straw -15.91%, corn -18.03%, and Phragmites australis -23.00%.

Dry Experiment T-test Results	Month 3	Month 4	Month 5
Coir vs. Pine Straw	0.2140	0.1222	**0.0424**
Coir vs. Corn Residue	**0.0105**	0.0879	0.0546
Coir vs *Phragmites*	**0.0272**	**0.0116**	**0.0009**

Table 1. The results of the 2-sample t-tests assuming equal variances performed for each material in the dry experiment. Significant values (P<0.05) are in bold.

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For the wet experiment, the average percent change in mass of the manufactured biologs by location in the marsh's tidal range was for the subtidal: coir 5.21% , pine straw bale -6.31% , pine straw sock -11.77% ; for the intertidal: coir 2.87%, pine straw bale -4.71% , pine straw sock -1.95%; and for the supratidal: coir 1.93%, pine straw bale -8.82%, and pine straw sock -9.86% (Table 2 & Figure 3). Overall, the pine straw bales outperformed the pine straw socks.

Substrate	Subtidal	Intertidal	Supratidal
Coir	5.21%	2.87%	1.93%
Pine Straw Bale	-6.31%	-4.71%	-8.82%
Pine Straw Sock	-11.77%	-1.95%	-9.86%

Table 2. The average percent change in mass of the logs in the wet experiment after 8 weeks by tidal location. The coir biologs had a slight gain in mass over the duration of the experiment while all autochthonous materials lost mass.

In the wet experiment, the pine straw bales were significantly degraded compared to coir after the 8-week exposure period, $p=0.0018$; while the pine straw socks were not significantly degraded after the same exposure period, $p=0.2667$.
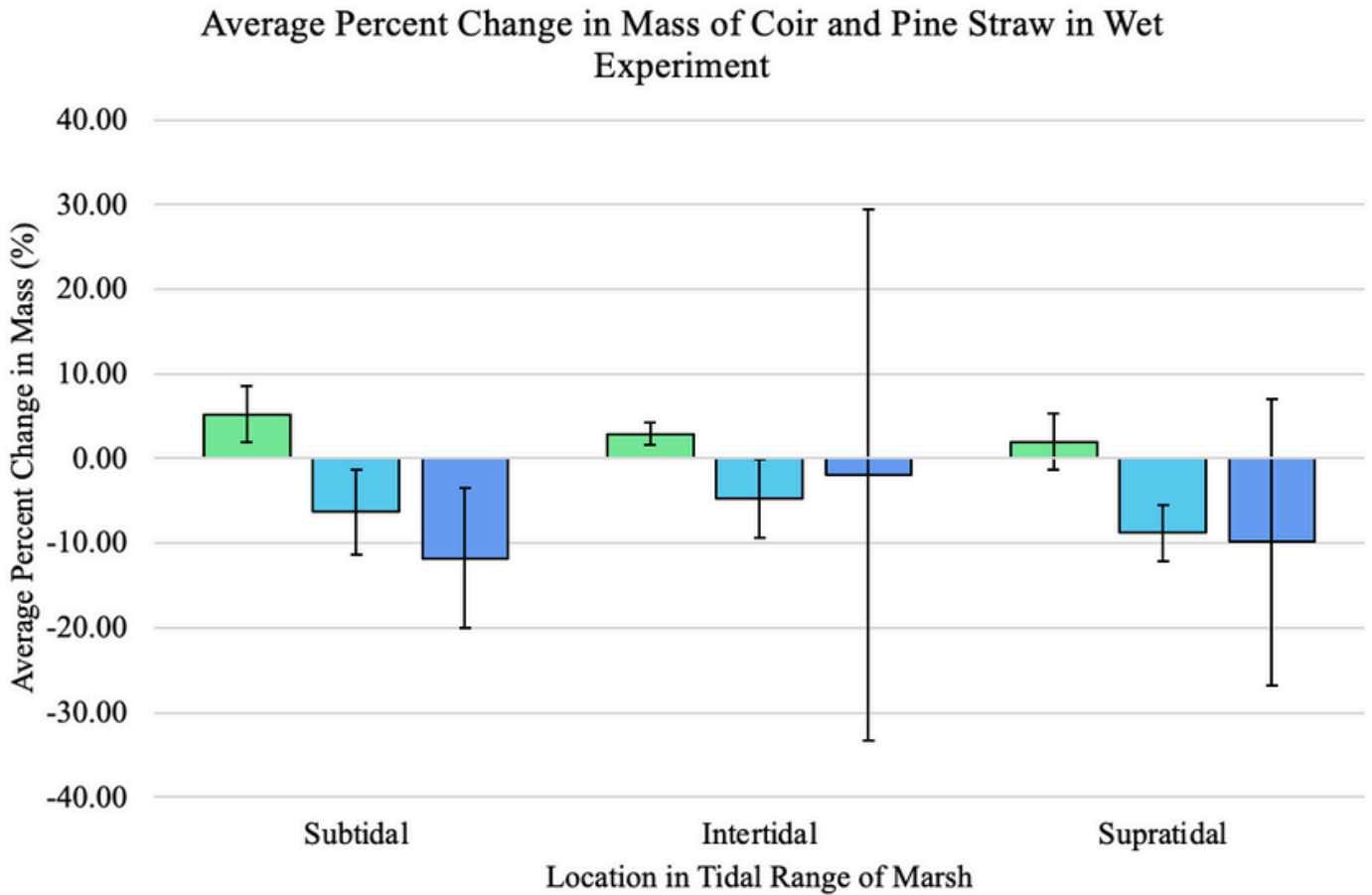
Figure 3. The average percent change in mass of the biologs in the wet experiment after 8 weeks. Coir treatments gained mass at each tidal elevation while autochthonous materials degraded and lost mass at each elevation inconsistently

Conclusion and Discussion

In both dry and wet experiments, coir performed the best with respect to maintaining mass over the study period, followed by pine straw, while corn and Phragmites australis did not perform to the same standard. Based on the t-test results on each material in the dry experiment, coir, and pine straw did not experience significant degradation over the exposure period, while corn residue and Phragmites australis degrade significantly Therefore, null hypothesis H_{O1}, *The difference in the in initial mass and final mass of pine straw, corn, Phragmites australis reeds, and coir will each not be significantly different,* can be rejected for corn and *Phragmites australis*, but cannot be rejected for coir or pine straw. Further, pine straw and Phragmites australis were significantly degraded compared to coir, while corn was not,

based on the t-tests results comparing each alternative material to coir in the dry experiment. Therefore, null hypothesis H$_{02}$, *The decomposition rates of pine straw, corn, and Phragmites australis reeds in the dry experiment will not be significantly different from coir*, can be rejected for pine straw and *Phragmites australis*, but cannot be rejected for corn. Lastly, comparing manufacturing methods to coir in the wet experiment, pine straw bales degraded significantly in the intertidal and subtidal zones compared to coir, while the pine straw socks did not, based on the t-test values. Therefore, null hypothesis H$_{03}$, *The degradation of the pine straw bale and pine straw sock manufacturing methods will not be significantly different from that of coir in the intertidal and subtidal marsh ranges*, can be rejected for pine straw bales but fails to be rejected for pine straw socks.

The results from this study are partially consistent with those of other studies examining the decomposition of coir, corn, *Phragmites australis*, and pine straw. Coir has been found to lose its cellulose content at a slow and steady rate over the first 2 months of decomposition while its lignin levels begin to decline greatly at the 2-month mark (Jeyanthi & Anbuselvi, 2009). This is consistent with the data collected in this study. The coir bundles in the dry experiment experienced the greatest change in mass in the third month. The corn decomposition trends deviated from the patterns shown in past studies. Corn residue left to decompose in a field experiences a 30% loss in mass by the 5-month mark while the corn in this dry experiment lost 18.03% over the same period (Al-Kaisi, 2019). The corn in this experiment did not experience as great mass loss during the first 2 months as the corn in other studies. However, beyond the 2-month mark, the general trend of corn decomposition is similar between studies. The pine straw in the dry experiment also experienced different decomposition trends than that of pine straw in other studies (Takeda, 1988).

Some improvements that could be made to the experiment include the deployment of more biolog samples in both experiments, as well as increasing their overall dimensions to better imitate the behavior of coir biologs. Additionally, the biologs should be studied over a longer period of time to learn more about their performance

in a wide range of temperatures and weather conditions. The location of the dry experiment in the present study was not conducive to a productive microbial population. In future studies, the dry experiment should be conducted across several different environments to learn more about the role of microbes and bacteria in decomposition. Future studies should also explore the effects of water and soil salinity and pH on the deployed biologs. In addition to these changes, the study could be expanded to examine other materials such as bamboo.

Living shorelines complement the dynamics of natural ecosystems and shorelines, unlike hard structures that reflect wave energy back into the body of water. Coir is the most popular material for biologs across the globe, and this study confirms its durability in the field, but this study also demonstrates that there are autochthonous materials like pine straw with some ability to provide the same service. Coir may work the best for long-term, large-scale stabilization projects, while pine straw could be used for more temporary applications, such as holding sediment in place for a few months while marsh grass grows. Phragmites australis is probably more helpful as a living plant, but as an invader, it should not be encouraged. In coastal Virginia, as local communities combat and adapt to the effects of sea level rise, more alternatives need to be explored to reduce the vicious cycle of outsourcing materials from around the globe to respond to the effects of greenhouse gas global warming.

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APPENDIX A

Average Percent Change in Mass of Coir and Pine Straw in Wet (W) and Dry (D) Experiments
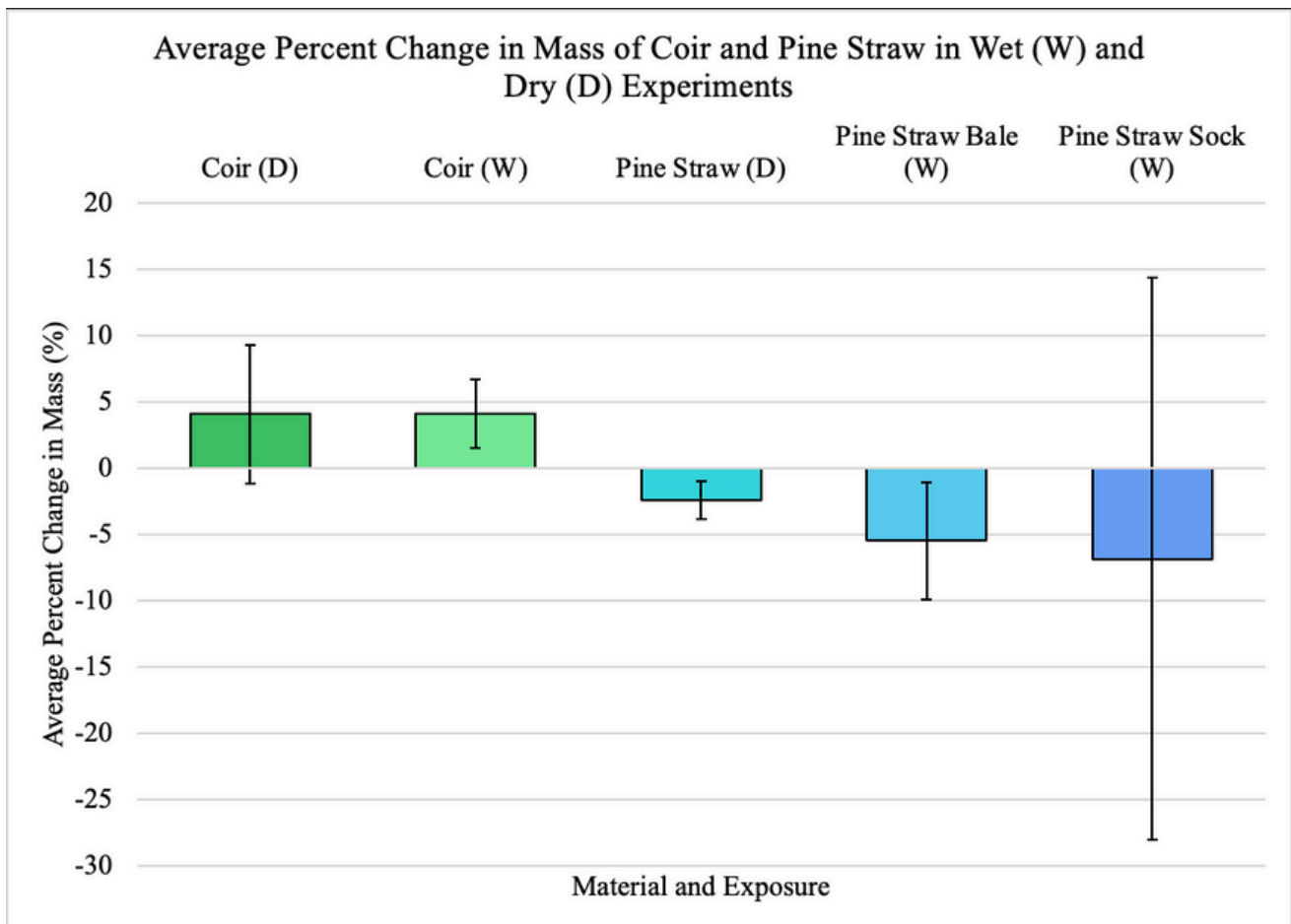
Figure 4. The average percent change in mass of coir and pine straw in the wet and dry experiments after an 8-week exposure period. Coir showed similar gains in mass in the wet and dry experiments (4.03%; 4.04%) while the pine straw in the wet experiment experienced a greater change in mass than the dry pine straw -2.45%; -5.51%; and -6.68% respectively.

U.S. Policy on Drugs and Related Crimes

MOLLY MORGAN

WRITTEN FOR PLS 135: US GOVERNMENT AND POLITICS

Drugs and drug-related crimes are currently running rampant on US soil. The issue arises when those drugs lead to drug-related deaths and drug cartels, both of which harm the community in addition to many other things. Our government and we, as citizens, should be doing more politically to help alleviate the harm caused to other citizens and our country by supporting the expansion of treatment to those with substance addiction.

Opioid deaths are a huge problem in the United States. Opioids have a prolonged history, with more than 645,000 overdoses documented since the 1990s ("Understanding the Opioid Overdose Epidemic"). According to the CDC, there were over 107,000 drug overdose deaths in 2021 alone. Though prescription drug overdoses remained the same and heroin overdoses lessened dramatically from 2020 to 2021, opioid and synthetic opioid overdoses increased considerably by 37% ("Understanding the Opioid Overdose Epidemic"). This information highlights just how widespread and significant drug overdoses are in the United States.

Drug cartels are a major problem in the US drug crisis because they are responsible for providing most of the drugs that cause overdoses. Several cartels have established operations in the US, some of which even have international reach (Boyer). Drug cartels are not limited to big cities, and even small towns have felt the impact (Boyer). Over 2,000 pounds of meth and 722,000 fentanyl-laced pills and heroin were trafficked to Butte County in Montana to be distributed by cartels (Boyer). Fighting illegal drug use in the US needs a multifaceted approach, one which attacks the cartels and combats addiction.

Generally, public opinion is in favor of fighting drug use but not in the traditional means. The Legal Action Center surveyed 1,066 Americans, with the following results

57% of Americans support investment in education, prevention, and treatment of drug and alcohol addiction, 63% of Americans also feel that too many non-violent drug offenders are imprisoned instead of receiving treatment to help them overcome addiction, and 78% of Americans believe that drug and alcohol addiction is a health problem, not a criminal problem, and needs to be treated as such ("Public Opinion"). Another survey was conducted by Bully Pulpit Interactive of 800 registered voters. Approximately 83% felt that the war on drugs had failed; 65% supported ending the war on drugs, and 66% supported eliminating criminal penalty for possession of drugs and channeling resources for drug enforcement into treatment and addiction services (Franklin 1). Americans are in favor of rehabilitating both the legal system and the way we treat addiction, which means that there will likely be presidential candidates showcasing their plans for fighting the US drug crisis in the next election.

Many interest groups in the US advocate for overhauling the US's position on drugs. Faces & Voices of Recovery's mission is to "change the way addiction and recovery are understood, embraced, and advanced through advocacy, education, and leadership." They state that their goals are to foster support for laws and public policies that favor rehabilitation, create recovery communities, and that "every individual, family, and community affected by substance use has access to quality, effective care and recovery support" ("About"). There is also an organization named CADCA, which stands for Community-Based, Advocacy-Focused, Data-Driven, Coalition-Building, and Association. Their stance is to use "community coalitions to prevent misuse through collaborative community efforts" ("About Us"). They also train and host international programs and youth leadership programs ("About Us"). They are also present in over 28 countries and have 305 community coalitions with over 14,000 trainees ("About Us"). CADCA and Faces & Voices of Recovery both echo the findings of the surveys conducted by BPI and LAC, that the people want a more community-based and treatment-focused approach to the drug crisis.

The White House has also released a fact sheet about Biden's National Drug Control Strategy for addressing the addiction and overdose epidemic ("Fact Sheet"). The Strategy aims to provide more treatment for substance users, as only 6.5% of

the 41.1 million people who need treatment received help due to lack of resources and barriers to treatment ("Fact Sheet"). The Strategy also aims for greater access to naloxone, drug test strips, and syringe services programs ("Fact Sheet"). There is also a focus on those who are at the highest risk of an overdose having a precedence for evidence-based treatment and emphasis on improving data systems and research to aid drug policies ("Fact Sheet"). The second half of The Strategy outlines a plan for dismantling drug trafficking and drug profits ("Fact Sheet"). Their goals are to disrupt and obstruct the financial activities of transnational criminal organizations, reduce the supply of drugs through domestic and international coordination and collaboration, and reduce the number of drugs smuggled across the borders ("Fact Sheet"). Though the National Drug Control Strategy sounds good in theory, it needs to be followed to the letter to have an effect, and the people who are on the ground in affected communities need to be doing most of the work through voting and campaigning for change. Because the issue has been ongoing for over 30 years, it will take a lot of policymaking, rehabilitation of previous policies, and community intervention to fight the drug crisis in the US.

The way the government has been fighting drugs is simply ineffective. Drug overdoses are growing higher every year with 2021 ending at over 100,000 deaths ("Understanding the Opioid Overdose Epidemic"). There needs to be radical changes using research and evidence-based interventions so that we can prevent so many needless deaths. Changes needed include expanding access to naloxone, treatment facilities that are proven to help, and encouraging research aimed at helping those addicted to substances. The most at-risk people are those who are homeless among a few others, which means that there also needs to be changes to help those who are already experiencing homelessness or those who are about to be ("Fact Sheet"). The citizens in their communities need to vote for reforms to fight against the drug crisis before the entire country becomes overrun with rampant addiction, death, and overdoses.

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Preventing Antibiotic Resistance

DANA PEACE

WRITTEN FOR ENG 112: COLLEGE COMPOSITION II

Antibiotics can be found in every medical field and doctor's office. They're prescribed for almost every ailment people have, from the flu to sinus infections to a deep cut. However, with this constant use comes a problem: antibiotic resistance. Antibiotic resistance is when bacteria are exposed to a certain antibiotic long enough that they become resistant to it, and in some cases completely immune. Some diseases are only treatable with antibiotics; without them, we'd be at a loss for what to do. We need to stop overusing antibiotics, instead giving the public a proper education about them and reducing their use in prescriptions, livestock, and the entirety of the medical field.

Despite how often antibiotics get prescribed and the number of people who've taken them at some point, many don't really know much about them. Antibiotics are a class of drugs specifically designed to target bacteria. They prevent the bacteria from functioning normally, thus causing it to die off (Biggers, 2022). Diseases antibiotics are used for include sinus infections, bacterial pneumonia, and the flu. This last one is a problem, since diseases of viral origin, such as influenza, are completely unaffected by antibiotics (Mayo Clinic Staff, 2018). People often insist a doctor prescribe them antibiotics for their illness, whether it works or not. Parents want something that'll help their child, someone wants to stop feeling like death after three days of a cold, a person thinks antibiotics are a miracle cure-all (Zago et al, 2023). In the end, all the antibiotic does is act as a placebo, soothing the nerves more than the sickness. The bacteria, meanwhile, get free exposure to something that could be used to kill them.

Bacteria become immune to antibiotics by being exposed to them and surviving (Biggers, 2022). Think of how hand sanitizers kill 99.9% of bacteria. That 0.1% that survives is the most powerful of the whole batch. Similarly, antibiotics kill most, but sometimes not all the bacteria they're being used to attack. People who don't finish their prescription are leaving the strongest bacteria alive, which can potentially lead to a repeat of their disease, but this time much worse. This is one of the ways bacteria develop resistance to antibiotics (Biggers, 2022). Not only are the antibiotics affecting the bacteria they were intended for, they also affect any bacteria in the body, including the healthy bacteria in the digestive tract and any that might've been picked up out of the air or from an infected person. People get antibiotics so very often, so it's easy as pie for bacteria to develop resistance to any given one, especially more commonly used ones such as amoxicillin (Britannica, 2023). A study conducted in 2004 found a direct correlation between the number of people getting prescribed antibiotics and the number of antibiotic-resistant strains (Albrich et al, 2004). As the number of prescriptions went up, so did the antibiotic-resistant strains, and vice versa. This points to how closely intertwined bacterial resistance and antibiotic use are. Used too often, antibiotics become useless. We need to stop that from happening; some diseases are only treatable using antibiotics, and without them, the bacteria can prove to be fatal.

So, what would happen if that were the case? What if every antibiotic were ineffective against every disease-causing bacterium? To start, things like tuberculosis and urinary tract infections would have only symptom-relief options for treatment. A patient would have to wait it out instead of getting rid of it as soon as possible. Hospitals would be death traps, with all the diseases running around, especially MRSA-type bacteria. For a brief overview, MRSA is a staph-type infection that's become resistant to many forms of antibiotics. It usually gets picked up by patients who've been in a hospital or other healthcare facility, such as a nursing home (Mayo Clinic Staff, 2020). It can result in painful hives, infections in almost every other part of your body, and some strains are of the flesh-eating variety. MRSA is very hard to treat because of constant antibiotic overuse, making it a nasty, virulent disease. My

sister had to have an operation and spent the night at the hospital for it. Post-operation, we found she had a MRSA infection, a flesh-eating strain. Antibiotics weren't really an option. The doctor put her on a very powerful non-penicillin antibiotic, combined with weekly submersions in an antibacterial 'bath' and tissue abrasions to get rid of the infected tissue. It was painful, laborious, and expensive. What would have taken a week or two to heal with antibiotics took over a month to be rid of completely. To see what the future holds if we don't cut back on antibiotic use, all we need to do is look at MRSA.

There are several proposed solutions to fixing the antibiotic overuse problem. The big one, of course, is just reducing the amount they're prescribed, which has been shown to work excellently (Zago et al, 2023). Some solutions are more effective than others. Many doctors, for example, prescribe antibiotics just to be on the safe side (Belluz, 2015). The common cold and the flu, viral diseases, have many symptoms in common with more serious diseases like pneumonia, which is more often caused by bacteria. Doctors will prescribe antibiotics just to be cautious, whether or not the diagnosis is likely. I disagree with this practice. While yes, being cautious is good, it should not be practiced to this extreme. Caution becomes harmful when it causes another, entirely different problem. By prescribing antibiotics when they may not be needed or effective, doctors contribute to the antibiotic overuse issue. What doctors should do, if they are unsure of what the patient has, is give them something for symptom relief and wait. If the disease progresses and reveals itself to be something more serious, then they can give antibiotic treatment for it, but not before.

Antibiotics have been around for decades now, starting with penicillin and leading to modern times, when we have a wide variety available, from amoxicillin to azithromycin. They are highly useful drugs, able to fight bacterial illnesses and infections where other medication would be ineffective. However, with the discovery of antibiotics came another problem: antibiotic overuse. We as people use antibiotics almost constantly. Our doctors prescribe them to us even if what we're sick with isn't bacterial, we get them from hospitals as a just-in-case medicine, parents and patients insist they get some, giving them something to make them feel better mentally, not

physically. For a good portion of antibiotic prescriptions, all they are is a placebo. As we use more, bacteria become more resistant. Infections such as MRSA are an example of what the future will hold if we cannot get our rampant antibiotic overuse under control. We can prevent antibiotic resistance by educating ourselves about antibiotics and how they really work, only using antibiotics for bacterial infections, which is what they're good for anyway, and finishing off the antibiotic prescriptions we get. By doing this, antibiotics can remain useful and effective for a good, long time.

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The Misuse and Unethical Disposal of Black Bodies

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How would you feel if, at the autopsy of one of your beloved family members, the coroner found that his heart and kidneys had been removed without your knowledge and used to perform the very first heart transplant in your state? This was the case for the family of 54-year-old African American Bruce Tucker in May 1968. After suffering fatal head injuries from a fall he took at work, he was transported to the Medical College of Virginia (MCV), where he was declared "brain dead." His heart was then taken from him and placed into the chest of a wealthy, white businessman, marking the first person-to-person heart transplant in the South and just 16th in the world. But, this isn't the only instance of abuse at the college. MCV also had a hand in hiring African American grave robbers like Chris Baker to steal bodies from local black cemeteries to be used as cadavers in the 1800s. Those bodies would then be disposed of in what is known today as East Marshall Street Well, where they would lay for years before being discovered in 1994. The Virginia Senate proposed Bill SJ274 to acknowledge the long history of misuse and unethical treatment of African Americans in medical institutions in Virginia. The state of Virginia should pass Senate Bill 274 to acknowledge and publicly apologize for the Commonwealth's role in the mistreatment, help rebuild the generational mistrust of medical institutions in the Black community, and modify it to include compensation for those affected and punishment for the medical institutions.

It is important to have Bill SJ274 passed because it allows the state of Virginia to formally acknowledge and apologize for its role in the unethical medical treatment of Black bodies. The Bill states, "..now, therefore, be it resolved, by the Senate of Virginia, the House of Delegates concurring, that the General Assembly acknowledge with profound regret the unethical use of black bodies by medical institutions in the

Commonwealth" (Bill SJ274). By taking accountability for the faults of Virginia's past with legislation, the General Assembly goes beyond the use of empty words by creating a lasting record for future administrations to see. This will make it harder for them to downplay the apology or the events that led to it, signifying a strong commitment by the Assembly to rectify the injustices.

This could be the same for individual medical institutions that want to issue apologies and participate in reparative measures. Virginia Commonwealth University (VCU) has issued an apology for their involvement in the mistreatment of Black Americans. In 1994, human remains, most of African descent, were found in what is now known as the East Marshall Street Well, where physicians and medical students of MCV in the 1800s would dispose of illegally obtained cadavers once they were finished with them ("East Marshall Street Well Project"). VCU held several public meetings to acknowledge the well and put a course of action in place to properly lay the remains to rest. Then, they had the African-American community come in to personify the remains, and they moved the remains to the Smithsonian Institution, where they will remain until they can be properly buried ("East Marshall Street Well Project"). These actions alone move far past an ordinary apology, as they willingly accept their faults and actively work towards correcting them. Though these places have made an effort to right their wrongdoings, it has still left a lasting effect on the Black community.

Another reason Bill SJ274 should be passed is that the history of the misuse of African Americans in medical institutions has left a generational trauma and mistrust in the Black community. Throughout history, there have been several instances of non-consensual experiments where African Americans have made up most of the participant pool; from the Tuskegee Experiment to the forced sterilization of Black women in the South in the 1950s. MCV has been a prominent medical institution in Richmond since its beginning in the 1800s, including its sinister history. Long-time Richmond resident Dorthy McFadden recounts at the age of 12, hearing her parents warn her and the kids playing in the yard not to venture outside of the fence surrounding it. She later heard the adults talking about MCV student doctors who

were rumored to be snatching bodies from the street (Utsey 1:09-1:35). Several other Richmond residents talked about hearing similar things when growing up and the uneasiness they felt when passing MCV, still to this day refusing to get close to it. They would use these rumored "snatched" bodies, and those stolen from surrounding Black cemeteries, as cadavers in medical classes, then dispose of them (Utsey 1:09-1:35). Black families became even more weary, as even in death, neither they nor their loved ones were safe from mistreatment in the guise of the color of their skin and perceived social class.

MCV was also secretive when it came to the ultimate demise of Bruce Tucker. Bruce Tucker's brother, William, was given the runaround when he visited MCV to see Bruce, finding out hours later that he had even been admitted to MCV (Jones, 6). He was ultimately told that Bruce had died on the operating table, despite reports of him doing well after surgery (Jones, 6). When MCV finally released information about the heart transplant, not only was Bruce's name withheld, but the circumstances under which the heart was obtained were concealed as well (Jones 6). The continued mistreatment of Black people, living and dead, has to be tied to the lack of formal and public punishment for medical institutions.

The third reason Bill SJ274 should be amended and passed is because there are no proper consequences for MCV's involvement in the mistreatment of Black people. None of the people, physicians, or institutions responsible in the Bruce Tucker case, body snatching, or mistreatment of Black bodies have been held responsible. The jury in the case of William Tucker vs. MCV ruled that the time of death could be determined when the patient was considered brain dead, rather than following Virginia law that said circulation had to cease (Jones 209). With this verdict, Dick Lowry and David Hume, two lead surgeons on Tucker's heart transplant, walked away as free men after stealing Tucker's heart. Not only that, they continued with their lives living in prestige for the "great" work they had done. Lowry left MCV after 25 years voluntarily, claiming his abrupt leave was because he didn't like one of the new lead physicians (Jones 318). When David Hume lost his life in a plane crash at 57, a Richmond News Leader editorial wrote, "Many thousands of people throughout the

the world owe their lives to his surgical research and techniques. Many hundreds of others who learned at his side, and who drew their life's inspiration" (Jones 320).

People who were hired to collect "cadavers" for MCV, like Chris Baker, were highly respected in the medical community, despite being African American. They can be seen in pictures alongside the graduating medical classes, Baker going as far as to be inducted into the Pi U Medical Fraternity for the work he had done for them (Utsey, 13:07 - 13:13). Despite Baker and his counterparts, including some of the MCV medical students, being charged with a felony for removing Black bodies from cemeteries, they received a pardon by the Governor of Virginia (Utsey, 10:57 - 11:02). Though most of the people involved are dead, their distasteful legacy lives on through the prominence of VCU and they continue to be praised for what they have done. Their actions should be met with consequence.

Some may argue that passing of Bill SJ274 will open old wounds. What people fail to realize is that these wounds never healed properly, and have continued to be passed down through generations. Acknowledging these wrongs could open the door for rebuilding the skewed relationship between the African American community and medical institutions. It could expose even deeper racist medical practices and encourage more Black medical students to follow through, which can also improve the relationship. It could help bring justice for those who suffered in the name of medicine, if modified, by holding the medical institutions accountable and administering punishment.

Bill SJ274 needs to be amended and passed because it will allow for the acknowledgment of Virginia's misuse of Black bodies, help explore the generational mistrust of the medical community in Black communities, and help bring justice for affected African Americans, dead or alive, by bringing forth justice to prosecute those involved. After passing out the bill, MCV must own up to their misdeeds. Those who wish to restore the humanity of those harmed by MCV, should write to the General Assembly and ask that they face punishment for their involvement.

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Inspiring Horror: A Comparison of *Scream* and *Black Christmas*

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Horror is a genre that has captivated audiences for generations. Two movies that have had a major impact on the horror genre are *Scream* and *Black Christmas.* *Scream* follows Sidney Prescott. On the anniversary of her mother's death, she and her friends become the new targets in a string of murders committed by a killer disguised in a Halloween costume. *Black Christmas* follows the members of a sorority house as they become the new victims of a faceless killer, when a string of strange, obscene, phone calls begin coming to the house during Christmas break. *Scream* and *Black Christmas*, one more well known than the other, have many things in common, but are also very unique films on their own. While one may use comedy, and the other suspense, to engage their audience, they both had great impacts on the horror genre.

One similarity that is very apparent to anyone that watches both movies is the fact that the main antagonist uses phone calls to antagonize their victims. They each, however, do this differently. In *Scream*, Ghostface, the killer, makes phone calls to his victims before he kills them. However, when he makes the calls, it is unknown where he is at that time, in fact for most of the movie Ghostface's location is unknown, as it is constantly changing. During the opening scene, Ghostface delivers arguably one of the most well-known lines in the whole movie. When Casey Becker, the first victim shown, asks why he wants to know her name, Ghostface replies with; "Because I want to know who I'm looking at" (*Scream*). This gives away that Ghostface is close, close enough to see Casey, however we do not know his exact location. Throughout the movie Ghostface's location is pretty much unknown unless he is shown on screen. *Black Christmas*, however, takes a different approach to portraying their antagonist. Billy, who we later find out is the name of the faceless

caller, is never revealed fully to the audience. He remains a faceless killer for the entirety of the movie. However, we, as the audience, always know his location. It is shown in the beginning of the movie, an unknown person climbing into the attic of the sorority house. As the girls receive the obscene phone calls the audience knows the caller is inside the house. The audience always knows his location, where exactly the phone calls are coming from, the sorority girls however, do not. As the police discover the origin of the calls later in the movie they deliver the most chilling line in the movie. When the address the phone calls are coming from is given to the lieutenant, he believes the man is mistaken. "He says the calls are coming from #6 Belmont Street." "For Christ's sakes, Nash, you got it wrong. That's where the calls are going into." The man replies with; "That's where they're coming from too sir" (*Black Christmas*).

One aspect of the two films that is different is that one uses comedy to engage the audience and one uses suspense. *Scream* uses comedy to capture its viewers' attention. One aspect of comedy that the film uses is comedic relief characters. One character in particular is Randy Meeks. Randy, a video store employee, delivers some of the most important lines in the movie, setting the mood for the movie. He gives us the fundamental rules to surviving a horror movie as well as other remarks poking fun at the horror genre itself:

> There are certain rules that one must abide by in order to successfully survive a horror movie. For instance, number one: you can never have sex… Sex equals death, ok? Number two: you can never drink or do drugs... it's a sin, it's an extension of number one. And number three: never, ever, ever, under any circumstances say, 'I'll be right back' because you won't be back... You see, you push the laws, and you end up dead (*Scream*).

Black Christmas however uses suspense to keep the audience on the edge of their seats. Using things like music and camera angles to give the audience a sense of uneasiness. Throughout the movie we see from the killer's perspective via first person camera angles, giving us a look into what the killer's motives are. Yet we still never

know his intentions. Knowing and simultaneously not knowing what's to come gives the audience a sense of fear. Visuals are also used to strike fear into the audience. Towards the end of the movie the audience gets to see the only piece of the killer's face. A single eye, the rest of his face cast in shadow between the crack of a door. This image paired with suspenseful music makes it one of the most chilling scenes in the film.

Both movies had a strong influence on the horror genre, however, in their own way. *Scream* introduces a different type of horror into mainstream television. A comedic style of horror commonly called "spoof horror". This type of horror uses comedic elements to portray a funnier version of an already existing thing, or in this case genre, like a parody. *Scream* also uses cameos and mentions other existing horror movies like, *Nightmare on Elm Street, Halloween*, and *Prom Night*. Lines like "My mom and dad are gonna be so mad at me!" and "Peer Pressure, I'm far too sensitive", from Stu, leave the audience laughing in times that are inherently serious. While other comedic lines are delivered by intentional comedic relief characters, like Randy Meeks. This type of horror and *Scream* itself inspired movies like *Scary Movie*. *Black Christmas* inspired many well-known movies including *Scream* itself. Others like *Halloween*, and *When a Stranger Calls* were also inspired by *Black Christmas*. This movie was one of the first to use the classic horror trope "the calls are coming from inside the house", inspiring movies like *When a Stranger Calls*. Alongside that it is one of the earliest slasher movies next to other well-known films like Alfred Hitchcock's *Psycho* and Tobe Hooper's *The Texas Chainsaw Massacre*.

Scream and *Black Christmas* are both great movies that have inspired and entertained people for years. Both movies are classics in their own right despite one having a larger audience than the other. People who prefer a more comedic aspect will enjoy *Scream* and those who prefer suspense will enjoy *Black Christmas*, however any horror fan will surely enjoy both movies. Despite what movie one may prefer, both certainly had their own unique impacts on the horror genre.

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Exposure to Violence in Adolesence

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Children are very susceptible in their younger years, and what they witness will affect them their entire life. Their brains are still developing, and they need help dictating what is considered right and wrong. Exposure to violence can be very detrimental to their mental development, but it has been increasingly harder to correct this issue. Children have access to the internet now more than ever, and they can find anything with the click of a button. This increase in accessibility and exposure to violence in recent years has proven to have a negative impact on younger generations.

Media has become a social centerpiece in modern day, and parents did not have to worry about this development with their children several years ago. Media is constantly growing and providing more ways to make internet accessibility easier. Not only has media consumption been on the rise but aggressive behaviors in children as well. There was a study conducted back in 2019 that suggested that within one month, 94% of children between the ages of 2 to 24 months had participated in physically aggressive behavior (Lorbor et al 2019). This is a young age to show aggressive behavior, but it can be stimulated with constant exposure to violence.

A child exposed to violence is already a less than ideal situation, but repeated exposure to violence is far worse. Repeated exposure to violence in any form at a young age leads to the normalization of violence, which is where the real problem begins. Children are highly susceptible because their brains are still developing, so what they are exposed to stays with them for their entire lives. Children are mostly exposed to violence with intimate partner violence. Intimate partner violence is essentially when a spouse commits an act of violence against their spouse. This is one of the most common ways that a child is exposed to violence, and it affects them even whenever they are outside of the home. Lee et al (2022) explains that children

who are exposed to intimate partner violence are more likely to bully children or become the victim of bullying than children who were not exposed. The violence that a child is exposed to at home affects their ability to create relationships outside of their home. Lee et al (2022) furthers this argument by stating, "this belief about the acceptability of violence, following observations of and modeling by violent caregivers, can translate into use of violence against peers, such as bullying, to obtain desired goals or power in peer relationships" (p.1284). Children begin to formulate their own personalities based on how their parents interact with others. They normalize this type of violence and believe that they should treat others that way or that they believe they should be treated that way because their parents have taught them that this kind of behavior is acceptable. Either way, this affects the way a child view themselves and those around them.

The normalization of violence does not end in childhood. It tends to follow them into adulthood as well. According to Chen and Lee (2021), "long-term consequences include abusive behavior later in adulthood such as involvement in dating violence, and/or having views that justify violence due to learning violent behavior as children and adolescents" (p.2624). By the time of adulthood, people have internalized experiences from their childhood that have brought up their morals. If they were exposed to violence within their childhood, they are more likely to normalize that violence and even turn to it as an adult. Owens and Strauss (1975) touches on this by stating, "a person can come to accept and approve of much of the behavior around him because he sees others engaging in that behavior especially if he sees other people obtain desired goals by using that behavior" (p.197). A child's development sets them up for life, and when exposed to violence at such a young age, it affects them for the rest of their lives. They will never truly escape that experience because it has managed to normalize that behavior within their own morals.

A child's mental development is just as important within this period as it is for them to build their morals. During this time period, trauma can affect the way their brain develops. According to Mueller and Tronick (2020), "several studies imply that

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exposure to family violence increases the infant's attention toward threatening stimuli. This form of attentional bias is a behavioral pattern well known to increase the risk for later internalizing problems, including social and general anxiety, social withdrawal, and depression" (p.237). This shows that internalizing issues at such a young age can be incredibly detrimental to a child's development, and the exposure can affect a child as young as an infant. Internalizing problems such as social withdrawal and depression can affect a child throughout their childhood and even in adulthood. This can affect a child's ability to create lasting relationships through their lives and causing them to miss a crucial part of their mental development.

Children are incredibly susceptible to trauma due to their brains still developing. A person's brain is not fully developed until the age of twenty-five, therefore there is a lot of impact that can happen to affect a person's brain development within this time period. However, the ages between toddler and teenager are the prime years for something truly detrimental to happen. For instance, Chen and Lee (2021) state that, "children's exposure to such violence negatively affects emotional, behavioral, and cognitive functioning, and hinders abilities, creating developmental challenges lasting into adulthood" (p.2624). Each of these issues usually show within a learning space, however they are hard to correct. There is little a school can do to help a student suffering from development issues because the child is still experiencing the source every time, they return home. This can be from the media they consume to experience violence at home. It is hard to pinpoint the source from an outside perspective, therefore it is difficult to correct in time for it to not affect them in adulthood. Once a child internalizes an issue, it is hard to set them off a course of action that they believe is justified.

In society, there are too many ways for a child to be exposed to violence daily. It is important for the parent to hold responsibility for their child in this time period because children do not fully understand the impact of this exposure. Varghese and Phillips (2022) believe that parents should keep a close eye on the amount of video games a child plays and how it affects them to prevent the symptoms from worsening. Children are naturally curious, and this only worsens the more they try to

understand. It is imperative that parents are monitoring what their children are watching or playing on their devices for this very reason. Whenever a parent monitors a child's exposure, it helps the child internalize better examples rather than creating a new normal that is detrimental to their mental development. Gollwitzer agrees with this point and states, "this is exactly what we need now: a collaborative effort (1) to reduce the dangers and negative consequences of media violence consumption and (2) to use the potential of media products to strengthen a wide commitment to prosocial values" (p.436). Media consumption is not always a bad thing and can even help with education purposes. However, without a parent's monitoring, it becomes a danger to the child, especially if they are exposing themselves to violence unintentionally.

As stated before, parental guidance is crucial in helping this problem of exposure in children. However, parental guidance is not always offered in homes like it is in others. Chen and Lee (2021) explain that mothers who tend to use drugs offer an inconsistent type of parenting that ultimately affects the children by increasing the risk of them internalizing and externalizing issues. In a situation such as this, it is difficult for a child to copy standards that are beneficial to them. Instead, they are already picking up unhealthy lifestyles and trauma that are causing this internalizing of issues. It shows a stark contrast between a child with monitoring and a child who has had to figure it out themselves. This can cause a lot of problems in adulthood such as anxiety and depression as stated by Chen and Lee. When taking this into consideration, it shows how important it is to monitor a child's exposure to things that they do not have the ability to understand yet.

Exposure to violence is becoming a more developed issue than it has been in the past, and it needs to be recognized. Some people believe that this is not an issue because it wasn't an issue in the past. However, media consumption is on the rise, and there is a correlation between children and what they are being exposed to leading to aggressive behaviors. With this being on the rise, it cannot be ignored. It is important to monitor children and teach them morals and values that will lead to less internalization of issues as they develop in life.

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