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What are the Ethical Implications of the Harm Done to Chronic Pain Patients by the Withholding of Opioids, as a Consequence of the Opioid Crisis?

Candidate Number: 2003188

Student Number: 100869509

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Supervisor: Dr Rebecca Roache

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Contents

Abstract

Throughout this *ethics* paper (which I need to emphasise is definitely not a *medical* paper) I argue that it is unethical to deny chronic pain patients the medication they need in order to live a functional and comfortable life. The way that the CDC handled the opioid crisis involved a major clampdown on doctors prescribing opioids for pain, since there were thousands upon thousands of people being prescribed opioid pain relief for very minor reasons – leading to those individuals becoming addicted. The clampdown didn't include those with cancer or in palliative care who were allowed their opioid pain relief, but chronic pain patients were left in a grey area, deserving just as much relief from their suffering as any cancer patient, but not being allowed it. Without denying that the opioid crisis is a tragedy, or that the CDC did successfully begin saving lives which is of course a good outcome, I explore the ethical conundrum that was involved in choosing the quantity of many lives over the quality of any lives. I explore what the opioid crisis is, why the utilitarian approach taken by the CDC meant that chronically ill patients ended up as 'collateral damage', and explain that moving forward, tackling the opioid crisis does not have exclude ensuring those with chronic pain have their quality of life returned to them.

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Tables/Figures/Stats

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My many thanks are to a number of people, who have helped me reach this achievement.

Firstly, my tutors. To Rebecca, for coming into my life in first year and being one of the best things that’s ever happened to me – for supporting me academically, through my illness, and for always being proud of my work; and to Dave, for believing in me even when I don’t believe in myself, and being the most incredible support system. I couldn’t have made it through uni without you.

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To my baby cousins Maddie and Caleb, the little loves of my life, that I couldn’t possibly love more if they were my own. Whom keep me sane and taught me what unconditional love was the day that they were born. Whom redefined how happy I thought possible to be; and are the reason I fight so hard for my wellness.

And lastly – *but probably most apt considering the context of this dissertation* – to my opioids: my Fentanyl, Oxy, and Codeine: for giving me my life back enough to even write a dissertation, despite our love-hate relationship. A milestone many (including myself) thought I’d never be able to achieve.

Introduction

Sadly, being chronically ill in 2020 can mean not only fighting to stay alive, but fighting our own doctors for the *means* to stay alive, too. The opioid epidemic has severely hurt many communities across the world – but one community that has been left as 'collateral damage' is the chronically ill community.

This paper investigates whether or not the response to the overwhelming number of people dying because of opioid overdoses (many of which were not intentional) – a phenomenon which is referred to as the 'opioid crisis' or the 'opioid epidemic' – was handled ethically, from the perspective of its consequences to those who need opioids to live and function due to chronic pain conditions. I will further explore if a phenomenological approach is the best way to ethically resolve both sides of the crisis.

When the opioid crisis developed into an epidemic, the Centre for Disease Control (CDC) created very restrictive guidelines that were recommended to doctors as a new way of cautious prescribing. This was a blanket example of greater-good, where the CDC needed to save an objective number of lives regardless of the diminished quality of life of a collateral group. Doctors took the hint very seriously and literally, and as a consequence destroyed the system of getting necessary medicine to those who need it. This meant that those who had been on opioid medicine for years as a consequence of long-term pain were abruptly refused prescriptions, which led to them going into withdrawal, sometimes with fatal consequences.[1] Those who needed to be put on medications were left without, and have therefore not been given the medical care they needed. The greater-good that was considered was one in which quantity of lives was significantly more important than the quality of lives.

Medicine has a tendency to focus on a consequentialist approach, which considers the consequences of actions as an ethical justification for the use of any means necessary to justify the ends. Statistically this looks much more significant on paper, as numbers of lives can be counted and reduced to a number. Someone's quality of life and whether or not they are functioning well enough to live their life isn't something that can be calculated on paper.

This rigid approach afflicts patients in two ways: it means first that the quality of life is not considered when denying patients opioids for unbearable pain, and secondly because they are surviving, they prop up the correct statistics – but will never be able to thrive. Utilitarian ethics is divided into varied and multiple categories; however, because of its significant and unique focus on the rationality behind the value of decisions, the most appropriate division of consequentialist ethics to proceed with in this case

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[1] Tennant, Forest (2012) *Sudden, Unexpected Death in Chronic Pain Patients.*

is Evaluative Consequentialism, in which “moral rightness depends only on the value of the consequences (as opposed to non-evaluative features of the consequences).”[2] The significance of ‘value’ is particularly relevant in the circumstances of the opioid crisis and my investigation into the quality versus quantity of lives, because if all lives are hypothetically valued as equal in the eyes of the drug-governing bodies – from street level to physicians to capitalist empires – then the value of the lives of chronically ill and disabled patients is just as great as the life of abled patients. However, although this is philosophically sound it is merely hypothetical. Ethically, to treat all lives as valuable should have the utilitarian (or any ethical theory’s) consequence of being truly the greatest good for the greatest number. However, the concept of the ‘greatest good’ is theoretically unqualified to determine whether the quality of lives or the quantity of lives is more valuable.

The most appropriate approach in this context can be found within Parfit’s *repugnant conclusion.*[3] According to Arrhenius and Tannsjo, “Parfit was led to the Repugnant Conclusion by his considerations concerning how we ought to act in cases where our decisions have an impact on who will exist in the future.”[4] Parfit achieved a conclusion so focused on life quality as opposed to merely life quantity by using the *impersonal total principle*.[5] This principle suggests that the most successful result is one which results in the maximum overall quality of life. The World Health Organisation (WHO) defines quality of life (QOL) as “an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment.”[6] Although this is the most pertinent definition of quality of life for the ethical evaluation I am making, at the time of using the principle Parfit wouldn’t have had such an exact definition (and there is no record as to how the WHO defined QOL before the 1999 report). The principle is one which, when applied to modern-day medicine, has been dampened for the sake of quantitative measures. I will use Parfit’s Repugnant Conclusion to evaluate whether or not the greatest good is the approach used by the CDC, and to judge whether they have failed to implement the greater good in the lives of those with chronic pain.

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[2] Sinnott-Armstrong (2012) *Consequentialism.*

[3] Parfit (1986). *Overpopulation and the Quality of Life*.

[4] Arrhenius and Tannsjo (2017) *The Repugnant Conclusion*.

[5] Parfit (1986) *Overpopulation and the Quality of Life.*

[6] World Health Organization (1999). *WHOQOL: Measuring Quality of Life*.

The responses to the opioid crisis conducted by the CDC are categorised into five strategies, which the CDC say are part of their commitment to preventing opioid misuse, overdose and deaths, and 'guide our work and help us protect all Americans'.

- Conduct surveillance and research: Timely, high-quality data help public health officials and other decision makers understand the extent of the problem.
- Build state, local, and tribal capacity: States, local communities, and tribes play an important role in preventing opioid overdoses and related harms. They run prescription drug monitoring programs, regulate controlled substances, license healthcare providers, respond to drug overdose outbreaks, and run large public insurance programs such as Medicaid and Workers Compensation.
- Support providers, health systems, and payers: Providers and the health systems they work in are crucial in promoting safer and more effective opioid prescribing for pain management. Use of the CDC Guideline for Prescribing Opioids for Chronic Pain by providers and health systems can improve the way that opioids are prescribed.
- Empower consumers to make safe choices: One of CDC's priorities is raising awareness about the risks of prescription opioid misuse with consumers.
- Partner with public safety: In recent years, the opioid overdose epidemic has worsened with a rise in the use of illicit opioids. Of particular concern is illicitly manufactured fentanyl, which is 50–100 times more potent than morphine. First responders including police, fire, and paramedics are on the frontlines of the epidemic.[7]

It is important to realise that the CDC want to prevent the three main elements of the crisis: the misuse, the overdose, and the deaths. The response strategy that this paper will be focusing on almost exclusively is the CDC's third response – "Support providers, health systems and payers" – which involves creating the guidelines at the prescription level to focus on the 'misuse' factor.

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[7] CDC (2019) CDC's *Response to the Opioid Overdose Epidemic.*

Section 1

What is the opioid crisis?

The CDC categorises the ‘opioid crisis’ in three definitive periods, structured over the past 20 years (Figure 1).[8]

Wave 1 of the opioid crisis occurred when doctors first began over-prescribing prescription painkillers such as oxycontin. This is used where a patient needed support with their pain, perhaps for a short-term injury or for some acute manifestation of pain, and a doctor would prescribe a form of opioid that has a high level of addiction risk. The incidence of this, according to the CDC, began rising in 1999.[9] When a doctor ‘over-prescribes’ an opioid, the term refers to the whole range of contexts and combinations in which too many patients are given opioid painkillers when they don’t need them, or for too long a period, as well as dosages above the correct level and analgesics that are too strong.

Wave 2 happened as a consequence of wave 1, and involved patients who were prescribed the addictive pain relief having their prescriptions stopped without any tapering off or risk-minimisation strategies – with the result that the drug that then became available on the streets, with similar properties to what was in the prescription medications, was heroin. This rise in heroin usage appeared in 2010, 10 years ago.[10] According to the CDC, the patients who lost their lives to the opioid crisis in the second wave began buying their heroin on the streets when they could no longer get prescriptions from their doctors.

Wave 3 came as a result of the synthetic opioid ‘Fentanyl’ beginning to dominate the opioid crisis in 2013. There are two sides to fentanyl, the legal side and the illegal side.[11] The legal use of fentanyl – and the one much more significant to my investigation, though less so to the opioid crisis as an outcome – is as a synthetic opioid used during surgery (when the drug would be administered intravenously by anaesthetists) and for late-stage cancer patients (and theoretically for others whose illnesses are severe and/or terminal) where no other opioids were

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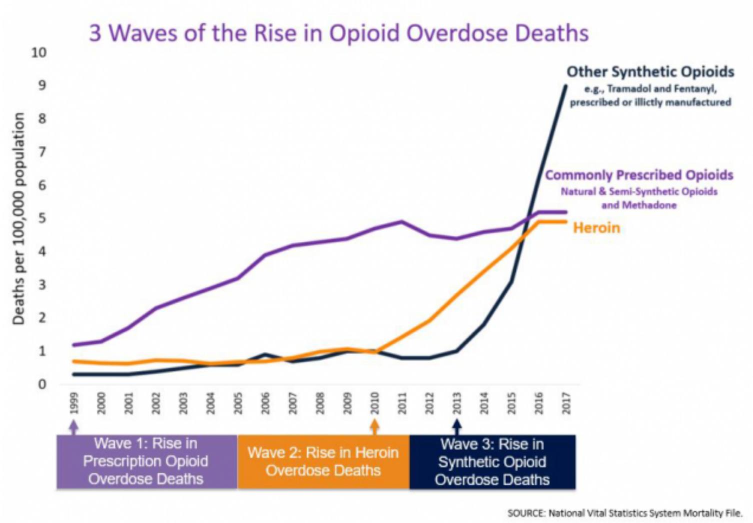
[8] CDC (December 2019) *The Three Waves of Opioid Overdose Deaths*.

[9] Parfit, Overpopulation and the Quality of Life (1986).

[10] Ibid.

[11] Minaj, H (2019) *Patriot Act.*

strong enough to work.[12] The illegal use of fentanyl involves mixing it with heroin to make the latter up to 20 times more valuable financially; the extreme potency of fentanyl (50 times stronger than heroin) means that the margin for error is razor thin.[13]


3 Waves of the Rise in Opioid Overdose Deaths

SOURCE: National Vital Statistics System Mortality File.

Figure 1 Three waves of the rise in opioid overdose deaths.[14]

I will explore the ethical validity of CDC responses that primarily came into play following the second and third wave of the crisis, when the impact of it skyrocketed.[15]

There are however already some discrepancies within these statistics which could have influenced the nature of chronic pain patients being left as collateral when the CDC created their response. “Fentanyl encounters do not distinguish between prescription fentanyl and illicitly-made fentanyl, but illicitly-made fentanyl has been reported as the primary driver for increases in both fentanyl encounters and fatal fentanyl-involved overdoses.”[16] By not separating the statistics between legal and illegal fentanyl, the illegal use of the life-dependent drug is being held against those who need it to regain a quality of life.

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[12] World Health Organization (1999) *WHOQOL: Measuring Quality of Life.*
[13] Ibid.
[14] National Vital Statistics System Mortality File.
[15] CDC’s Response to the Opioid Overdose Epidemic (2019).
[16] CDC (July 2016). *Reported Law Enforcement Encounters Testing Positive for Fentanyl Increase Across US.* For additional information see: Counterfeit prescription pills containing fentanyls: A global threat (https://www.dea.gov/sites/default/files/docs/Counterfeit%2520Prescription%2520Pills.pdf).

Although the first wave is accredited to the overprescribing of opioids, the following article from *Harvard Women's Health Watch* shows the nature of the first 'wave' carrying long into the time frame that the CDC calculated to be already in the second wave.

> "Doctors have been overprescribing opioids for chronic musculoskeletal pain, according to a December 2019 study in the *Journal of Pain*. Researchers looking at data from a survey conducted between 2007 and 2015 found that doctors more often prescribed pills, either non-opioid or opioid, rather than physical therapy, counselling, or other nondrug interventions — a practice that is directly at odds with what experts now recommend, including those in the CDC *Guideline for Prescribing Opioids for Chronic Pain*. At their first visit with the doctor, people were most often prescribed non-opioid painkillers (40.2%) or opioids (21.5%), followed by counseling, nonpharmacological treatments, and physical therapy. Study authors say this shows there is room for improvement through education. However, it's worth noting that the time period studied (2007 through 2015) preceded much of the recent work and advocacy aimed at reducing prescriptions of opioids."[17]

In the context for prescribed opioids, it is important to look at the MME prescription guidelines and calculations. An MME is the unit of measurement that standardises the amount of opioid in the narcotic drugs.[18] This framework attempted to create a guide for doctors and medical/healthcare professionals, to help them understand the gravity of what they were prescribing. The guidelines outlined how opioids combined to create a cumulative effect, which through standardisation can be valued and monitored by doctors. This standardisation compares the dosage of a particular drug by multiplying it by its strength of opiate in comparison to morphine in milligrams. The conversion chart the CDC gave for guidance is as follows (Figure 2):

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[17] Harvard Women's Health Watch (April 2020). *Doctors' Pain Pill Prescribing Habits at Odds with Current Guidelines.*

[18] CDC (2019) *Calculating Total Daily Dosage of Opioids for Safer Dosage*.

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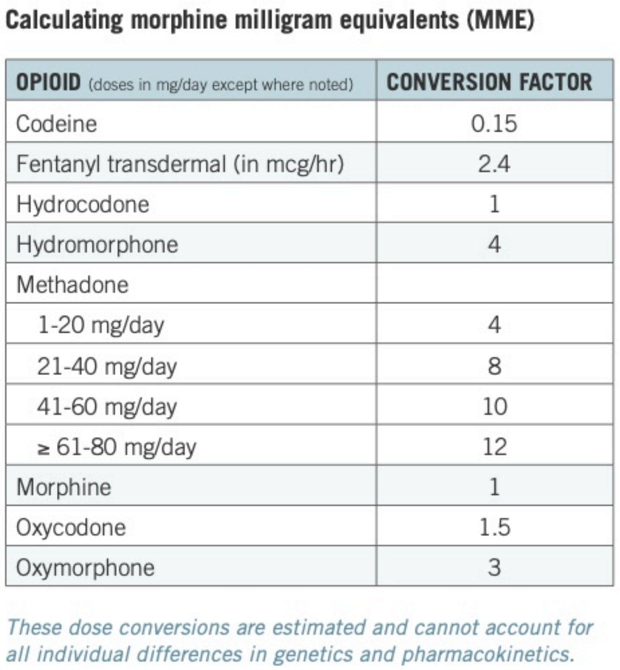

Calculating morphine milligram equivalents (MME)

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.

Figure 2 Calculating morphine milligram equivalents (MME).[19]

I am not at any point, in assessing the ethical implications around restricting prescriptions, intending to disrespect or disregard the cumulative effect of building up opioids in the system, or the dependency that will absolutely and definitively happen as a consequence. (I refer to this as a *somatic dependency*, as opposed to a psychological dependency which I refer to as an *addiction*.) This attempts to exemplify the way that different opioids do accumulate in the body to create an overall pain-relief effect in those who are prescribed it legally. This is pertinent to my case, because it outlines how meticulous the response to the opioid crisis that I am ethically analysing became. Despite releasing guidelines and structure to doctors, the approach the CDC used was heavily influential on anyone experiencing pain – either acute or chronic – which ultimately changed many lives.

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[19] National Vital Statistics System Mortality File.

Section 2

From a moral standpoint, did the CDC handle the crisis unethically because chronic pain patients were harmed?

Despite my firm stance that the ethical decisions made by the CDC were not appropriate because of their emphasis on quantity over quality, it's not possible to say definitively that one ethical theory is good, and another is bad. In that sense the judgement as to whether the CDC handled the situation 'poorly' is multifaceted. I am going to pursue this using the approach that although a utilitarian ethic could be a very successful in another scenario, my ethical evaluation is concerned only with the context of chronic pain patients being harmed because of the utilitarian approach, and how this specific situation was handled. The projection of different ethical scenarios, though, is beyond the scope of my dissertation.

To explore the reasoning and risk of taking a classical utilitarian approach[20] as the ethical position not only to choose, but to justify even after the consequences are clear, I will look at the decision in the context of "legal and social reform. If anything could be identified as the fundamental motivation behind the development of Classical Utilitarianism it would be the desire to see useless, corrupt laws and social practices changed. Accomplishing this goal required a normative ethical theory employed as a critical tool."[21] The way that classical utilitarianism uses a consequentialist approach[22] means that the greatest good for the greatest number of people is the intended outcome, and therefore justifies the grounding of the decision within the pursuit of the greatest good. In this context, the appropriateness of legislation and in particular social morality is used to evaluate whether or not the outcome is 'good'. The mathematical conclusion from the approach would be successful, and credit to the CDC for a positive evaluation; however, if all lives are of the same value, then there will consequentially be negative fallout, and some lives will be sacrificed. Although this political and ethical hybrid morality causes an expected

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[20] Driver (2019) *The History of Utilitarianism*

[21] Ibid.

[22] Tennant, Sudden, Unexpected Death in Chronic Pain Patients (2012).

fallout, it undeniably seems on the surface to be a reasonable approach in a situation so drastic (particularly in the third wave). But it also needed to be delicately handled by a legislating body as powerful as the CDC, who acted as though the lives they serve were merely statistics. However:

> "Utilitarianism is also distinguished by impartiality and agent-neutrality. Everyone's happiness counts the same. When one maximizes the good, it is the good impartially considered. My good counts for no more than anyone else's good. Further, the reason I have to promote the overall good is the same reason anyone else has to so promote the good."[23]

This suggests that utilitarianism may not have been the best approach to take. Agent-neutrality works in a situation where each individual has equal worth; however, the idea that everyone's happiness is ethically of equal value is not directly influential to the outcome producing the most 'good' for all of the patients (i.e. both those suffering addictions and pain patients). What may be a very possible intention behind the approach, however, is that it constitutes the greatest good for themselves, perhaps as a way of reducing the statistics that resulted from their implemented actions, of showing that they are productive and successful, merely by attacking the source of the problem to prevent future addictions. Although there are other schemes and support systems throughout the US and the world that exist to support those with opioid addictions, trying to find information about them is a challenge in itself. From exploring the CDC website and the link to the National Institute of Drug Abuse website that the CDC provides,[24] I am only able to find support offered through a tertiary link to the substance abuse and mental health service administration(run by the US department of Health and Human Services).[25] If they can reduce their numbers with intent to have done so and achieve a result that can appear as an overall 'good' to have been upheld, then utilitarianism can mask the damage done to the minority.

The CDC's own admission of guilt[26], was a response to a paper in the *New England Medical Journal*, in which Dowell (et al) brings to light the harm that the CDC's guidelines have done:

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[23] Driver, *The History of Utilitarianism* (2019).

[24] CDC, Persons Who Inject Drugs (2018); see also https://www.drugabuse.gov/drugs-abuse/opioids [accessed on 14.04.2020].

[25] US Department of Health and Human Services, Substance Abuse and Mental Health Service administration, Locator Map.

[26] CDC (2019) *CDC Advises Against Misapplication of the Guideline for Prescribing Opioids for Chronic Pain* [online] Available at: https://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.htmlhttps://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.html [Accessed 18.05.2020]

> “Efforts to implement prescribing recommendations to reduce opioid-related harms are laudable. Unfortunately, some policies and practices purportedly derived from the guideline have in fact been inconsistent with, and often go beyond, its recommendations. A consensus panel has highlighted these inconsistencies,[5] which include inflexible application of recommended dosage and duration thresholds and policies that encourage hard limits and abrupt tapering of drug dosages, resulting in sudden opioid discontinuation or dismissal of patients from a physician’s practice. The panel also noted the potential for misapplication of the recommendations to populations outside the scope of the guideline. Such misapplication has been reported for patients with pain associated with cancer,[5] surgical procedures,[5] or acute sickle cell crises. There have also been reports of misapplication of the guideline’s dosage thresholds to opioid agonists for treatment of opioid use disorder. Such actions are likely to result in harm to patients.”[27]

The CDC’s response[28] to this did not consider chronic pain patients as victims in any way and did not show remorse or guilt, only acknowledgement of wrongdoing. Making a statement without remorse means that they have taken the time and consideration to recognise the harm that they’ve done, and they know that they have performed poorly on behalf of the patients who have suffered as a result of the clamp-down – but they still believe in the original choices that they made. Their response includes:

> “Misapplication of recommendations to populations outside of the Guideline’s scope. The Guideline is intended for primary care clinicians treating chronic pain for patients 18 and older. Examples of misapplication include applying the Guideline to patients in active cancer treatment, patients experiencing acute sickle cell crises, or patients experiencing post-surgical pain.”

When the CDC put restrictions on opioid pain relief, the intention was to save the lives of the many who were being *wrongly* prescribed opioids for extended periods of time for minor levels of pain, and who then could become addicted and possibly lose their lives to an overdose. However, the group that was targeted as a by-product of attempting to reduce the opioids available to anyone was those who don’t fit in the category of an immediately terminal illness but instead suffer with life-long illnesses that causes intense pain. Even in the CDC’s response to the NEMJ article, they still uphold the guidelines purpose explicitly includes chronic pain patients even though they know the guidelines are being misapplied. The article also warns clearly that what the CDC suggest could cause “withdrawal [and] intense pain” in patients, but they still not only stand by their choice but firmly repeat it. It is interesting to consider what this ‘guilt without remorse’ means within ethical parameters. When a guilty verdict is read, a defendant who doesn’t show remorse is likely to serve a harsher sentence.

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[27] Dowell et al (2019), No Shortcuts to Safer Opioid Prescribing New England Medical Journal.

[28] CDC (2019) *CDC Advises Against Misapplication of the Guideline for Prescribing Opioids for Chronic Pain* [online] Available at: https://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.htmlhttps://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.html [Accessed 18.05.2020]

However, when there is no legal issue involved – only ethical ones – then there is no consequence for upholding the decision that was chosen, no matter the consequence.

In each of these cases, collateral damage will always be considered a by-product of a successful outcome. But what I am looking at here is how the lives of the collateral have just as much importance and value. Although from a perspective of moral application I am only able to use traditional ethical theories and apply them in the context of opioid prescribing, papers used to teach medical ethics within the medical community inform medical students (and of course also any professionals open to learning more about their craft) about how they should think, decide, and calculate decisions. Ethics are entirely subjective, even objectively formatted ones, because it is an individual only who chooses and uses an ethical theory in their own moral quandary. Medical papers such as those found in the *AMA Journal of Ethics* have a medical and clinical background but make an attempt to branch over into ethics. This highlights a potentially significant issue, in that medical ethics and moral philosophy have different intentions for ethics. Papers such as '*How Should Medical Education Better Prepare Physicians for Opioid Prescribing*?' give a vibrant insight into the nature of 'ethics' as far as medicine is concerned. In this paper, Singh and Pushkin explain that:

> "Such findings demonstrate that there is room for improvement within medical education, especially pertaining to education about the ethics of prescribing opioids. As Stratton et al note, one potential consequence of opioid prescribing that deserves ethical attention is "adequately addressing a patient's chronic noncancer pain without possibly setting the stage for addiction to opioid medications." In this paper, we review the current state of ethical education and opioid-related courses in medical schools and describe strategies for improving training in the ethics of opioid prescribing. Learning from cases that encompass a broad spectrum of patient experiences and histories can better prepare students to identify potential issues such as misuse, diversion, and overdose while not negating the patient's needs."[29]

Theoretically, the recommendation for medical schools to "adequately address a patient's chronic noncancer pain without possibly setting the stage for addiction to opioid medications" could be a positive progression in approaches to pain management, however this is only in theory. Until there are confirmed adequate *options* available for 'non-cancer' chronic pain – as each individual's pain is going to respond differently to any treatment, therefore there need to be multiple options available – then the pain management processes that we already know are successful but risky need to be appropriately considered in order to give the patient a functional quality of life.

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[29] Singh and Pushkin, How Should Medical Education Better Prepare Physicians for Opioid Prescribing? (August 2019). Quotation is from Stratton et al., Ethical dimensions of the prescription opioid abuse crisis. *Am J Health Syst Pharm*. 2018;75(15):1145-1150.

In no way diminishing or reducing the experience of cancer patients in the context of opioid withholding, the word 'non-cancerous' is particularly inflammatory (pun intended). Although it may affect the length of life and therefore the addiction risk – which I will explore later under the context of QALYs – it implies that the pain which is not caused by cancer isn't as severe or life-destroying. Dr Forest Tennant's webinar "Managing Intractable Pain in Ehlers-Danlos" explains that:

> "At this point in time, I put EDS in the category of being in the top three or four most severe pain problems. A lot of people for example think that cancer pain is the worst of pain but let me assure you that many EDS patients have pain far beyond any cancer patient I've ever seen. And so, it's one of the pain problems that is severe, has been very troublesome, many physicians are afraid of the disease and of the kind of the pain that EDS patients have."[30]

A top specialist in intractable pain is able to compare a condition that is non-cancerous on the same elevation of pain, but if the CDC don't recognise them as equal because of the 'life years' – it seems on the surface as though they are protecting those with a much longer lifespan from addiction than someone with 6–18 months to live has to concern themselves with – but they are also ignoring the logistics of a non-cancerous patient having to endure many more years of pain than a cancer patient would.

Of course, there need to be regular checks with opioid use, and there will absolutely be risks, but it is not ethical to prevent pain patients from having a liveable-in body because doctors have mis-prescribed for patients with minor injuries, as described in Singh's above paper:

> "Physician overprescribing has been cited as a contributor to the epidemic. Hirsch posits in his evaluation of the causes of the opioid crisis that though most physicians are 'well meaning,' they often prescribe '30 or 60 pills when 5 or 20 would have been adequate.' In the United States alone, 240 million opioid prescriptions were dispensed in 2015, nearly one for every adult in the general population. Between 1999 and 2015, the morphine milligram equivalents per person prescribed in the United States increased from 180 to 640."[31]

In the context of my evaluation of MMEs above, that is a phenomenal number of opioids prescribed, especially if it was unnecessary. This brings me to the most important points I make in this paper.

Firstly, I am not arguing for opioids to be prescribed unnecessarily. The use of such toxic medicines without a genuinely just cause is putting people's lives at risk, and I entirely support the efforts of the CDC to prevent this

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[30] Tennant, Forest (2015) *Managing Intractable Pain in Ehlers-Danlos.*

[31] Ibid.

happening – however it's the consequences of the way that they went about doing this that I am arguing has harmed chronic pain patients.

Secondly, I am not denying that for some forms of chronic pain opioids are not the answer, as promoted by the Faculty of Pain Medicine of the Royal College of Anaesthetics:

> "Opioids are very good analgesics for acute pain and for pain at the end of life but there is little evidence that they are helpful for long term pain. A small proportion of people may obtain good pain relief with opioids in the long-term if the dose can be kept low and especially if their use is intermittent (however it is difficult to identify these people at the point of opioid initiation) …. When medicines don't give sufficient analgesia there is a risk of dose escalation. This is rarely helpful."[32]

If there is likely to be no productive outcome from opioid use, then of course a different approach is the logical and common-sense option, particularly if there is no acute source for the pain. Using opioids and any strong analgesia on psychosomatic pain could very well lead to dose escalation as suggested above, bringing with it a higher addiction risk.[33] However, if there is no reasonable alternative available *and* opioid-based pain relief is successful in giving a quality of life because it genuinely interferes with the pain (and isn't a placebo), then until another option is available, I am projecting that the patient has every right to maintain their individual value; and every right to exercise their own autonomy to take medication that will help them if they so choose. Regular check-ins and intake-tracking in a diary can be put into practice at the time of using the opioids to allow the patient to feel in control of their medication intake.

The Faculty of Pain medicine goes on to instruct that:

> "Good practice in prescribing opioid medicines for pain should reflect fundamental principles in prescribing generally. The decision to prescribe is underpinned by applying best professional practice; understanding the condition, the patient and their context and understanding the clinical use of the drug. Initiating, tapering or stopping opioid medicines should be managed in agreement with the patient and all members of their healthcare team. This resource, developed by UK healthcare professionals and policymakers, provides the information to support a safe and effective prescribing decision."[34]

The emphasis on 'understanding the condition' is the most significant point I have covered so far. Chronic pain, particularly in discussion of the opioid crisis, is often thought of as one collective entity. Whereas in reality, chronic pain is the term used when pain from any infinite number of conditions is chronic. From the level of the

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[32] Faculty of Pain Medicine of the Royal College of Anaesthetics (2016) *Opioids Aware.*
[33] Schatman (2011) *Identifying Abusers Prior to Initiating Chronic Opioid Therapy.*
[34] Faculty of Pain Medicine of the Royal College of Anaesthetics (2016) *Opioids Aware.*

practitioners who prescribe the medications, the individual needs and condition of the patient can be tailored to with an individual pain-management programme. However, if organisations such as the CDC set guidelines in which clamp down on prescriptions in a way that does not allow for suitable and appropriate uses, then those whose lives depend on them are being treated as a means to an end. However, the release in the New England Medical Journal (Reference[15]) suggests that the CDC are relaying the inappropriate drug-restrictions on the doctors' interpretations of the guidelines, therefore resolving themselves of any blame.

Section 3

What are the ethics involved in QALYs, and what would quality of life without pain relief look like for chronic pain patients?

To understand the decision to clamp-down on medications as a blanket guideline, as opposed to even putting some recognition or context into individuality of conditions, I need to look at the system of ethics engrained into medical ethics throughout the world: The Quality of Life Years assessment. Prieto and Sacristan explain that:

> "In an attempt to integrate the biomedical and psycho-social models, a new approach has been proposed which can be labelled the bio-psycho-social model. The aim of this model is to combine the biological, individual and societal perspectives of health in a coherent fashion. A paradigmatic indicator within this model is the quality-adjusted life-year (QALY), which serves as a composite indicator allowing quality and quantity of life to be combined in a single index…
>
> …Over the last two decades, QALYs have become increasingly widely used as a measure of health outcomes. This is largely due to three important characteristics. Firstly, the QALY combines changes in morbidity (quality) and mortality (amount) in a single indicator. Secondly, QALYs are easy to calculate via simple multiplication, although the prior estimation of utilities associated with particular health states is a more complicated task. Finally, QALYs form an integral part of one particular type of economic analysis within healthcare, i.e. cost-utility analysis (CUA).
>
> Whereas in Cost-Effectiveness Analysis (CEA), incremental effects are assessed in natural units such as lives saved, years of life gained, blood pressure measured in mm of Hg, etc., in CUA the incremental improvements in health are measured using QALYs. A further advantage of QALYs, is that they allow the effectiveness and cost-effectiveness (or cost-utility) of interventions applied in very different disease areas to be compared, even when, because of their different outcomes, they would not be comparable within a CEA."[35]

The QALY of someone with chronic pain should, by analysis, be progressive on behalf of the patient. If I am focussing on non-cancerous chronic pain, then a lot of conditions, if treated in the best way, can be manageable for the rest of the patient's lifespan, giving them a high quality of management. However as explored a little

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[35] Prieto and Sacristan (2003) *Problems and Solutions in Calculating Quality-Adjusted Life Years (QALYS).*

above, the concept of non-cancerous/cancerous pain is far more complex in terms of QALY's than the implication that they're very distinct and opposite types of pain. Using the three characteristics of QALYs explained above, it is very clear that when a large organising body has to put in a blanket-procedure to be followed, QALY's aren't particularly appropriate because they need to try and cover a multitude of conditions as well as short-term injuries. To try and apply a traditional approach like QALY's:

1. Upon the first condition, *combining the changes in quality and quantity of a condition* seems paradoxically both counter to the way that the CDC responded, and yet also very accurate. On one hand, the quality of the life left for someone with a terminal cancer should be a priority, and making them comfortable and as functional as possible for the 'life years' that they have left – that is not in dispute in this paper, and is upheld by the CDC's attitude towards opioids; however, comparatively, someone with a condition that will last for the rest of an average lifespan is going to be suffering for many more years than someone who is terminally ill, and contrary to the CDC's approach the pain management of those who aren't terminal is seen as unimportant – or if not *un*important, then just simply not worth the risk in exchange for symptoms being managed. It's baffling that the notion of 'keeping a patient comfortable' is so prominent in palliative care, but for those suffering in a longer period of time doesn't apply.

2. In application of the second given condition, there is mathematical strategy involved. Part of the source of my argument is the objective approach that caused such mayhem within the chronic pain community, because of the means-to-an-end way that consequential ethics attempts to employ, but utilitarianism almost guarantees. Following a non-phenomenological, non-patient-centred approach means that a patient's worth should in theory be valued in the same way as every other patient, because when no one's personal circumstances are known the medical needs should be all that are used in an equation. However, when the personal is removed, the person can easily be forgotten. Ethically, reducing everyone to an equation may be effective, but it minimises humanity.

3. The final step of QALY is the economic element, which unfortunately in the current capitalist and materialistic climates is just as important as the medical and personal quantities. With palliative care, although those who aren't terminal ill ethically deserve just as much comfort in their life, palliative care will effectively be the cheaper treatment option as treatment won't need to be anywhere near as long. Although this seems an exploitive angle to take, ultimately cost-benefit analysis and calculation is the basis of the QALY conception in a mathematic microcosm.

What's abundantly clear within the QALY system is that it's not about the patient, and that's exactly what I am suggesting in this paper has happened in the opioid crisis, preparatory to claiming that there are better ethical responses that could have taken place. Therefore, QALY is unlikely to guarantee the safe and fair justice for chronic pain patients.

If I'm going to defend the ethical value and autonomous worth of chronic pain patients, I need to explain the true intensity of suffering that happens without proper pain management. Cheryl Arenella wrote a paper for the American Hospice Foundation – which should therefore be aimed at those in palliative care – the title of which is inclusive of those with a 'serious' illness, and champions pain relief for anyone who is suffering, irrespective of their circumstances, and also debunks the worries of opioid addiction in those who really need opiates for pain relief. She boldly opens the paper by saying that "Albert Schweitzer once said 'pain is a more terrible lord of mankind than even death itself."[36]

Arenella spectacularly faces the question that many haven't dared to address, and in her professional analysis explains any concern about addiction in regard to treating serious illness with opiate medication. She writes that:

> "People who are prescribed opiates for the management of pain in accordance with generally accepted guidelines do NOT become addicted. Addiction is a psychological disorder marked by craving for a substance (alcohol, drugs) in order to experience a 'high' (state of euphoria), lack of control over the substance, and continued use of the substance in spite of harm to the person. It can be accompanied by behaviours that are harmful to the individual or society (e.g. stealing to get money for the drugs). In a study over 11,000 patients who received opiates for pain following surgery, only 3 or 4 patients developed subsequent problems with substance abuse. This is much lower than the actual rate of substance abuse in the general population (about 8%) … When a person is on an opiate medicine regularly for more than a week or so, his system becomes 'physically dependant' on the medicine. That is, the body becomes accustomed to having a certain level of the medicine in the blood stream, nervous system and brain. If the medicine is then stopped abruptly, that person may suffer symptoms of 'withdrawal' (they may have sweats, rapid heartbeat, abdominal cramps, and runny nose). This is NOT the same as being addicted (Remember, the definition of addiction above as a psychological disorder is marked by craving for a substance in order to experience a 'high', lack of control over the use of the substance, and continued use of the substance in spite of harm to the person)." [37]

There are many hugely important points made here that are relevant to my core argument that it is unethical to deny chronic pain patients the medications they need in order to live comfortable and even functioning lives. Firstly, if a patient is prescribed medications for the pain that they are in then that has no connection with whether

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[36] Arenella (undated) *Use of Opiates to Manage Pain in the Seriously and Terminally Ill Patient.*
[37] Ibid.

or not the patient has an addictive personality trait or is vulnerable to the psychological illness of addiction. The purpose of putting them on the medication is never for the malicious sake of getting them addicted to a harmful substance, though it may be an accidental by-product; but to change their life, and the risk of their psychologically craving them is very minimal. Although the patient's body will become dependent on the drugs, because the level of opioid in their blood stream is their body's new level of functionality, the effect on the body of reducing pain is not equivalent to the feeling of a euphoric 'high'. If a patient needs medication as strong as fentanyl and oxycodone just to reduce their pain, then the effect of ingestion/absorption is purely in the pain, and not in the cognitive perception. The way that the body becomes physically dependant on the medication is different than an addiction, although it is likely that the effectiveness of a dose will minimise over time because of the body being used to the level that is in the system, and the pain beginning to overcome the relief.

Consider this prominent statistic: "In a study over 11,000 patients who received opiates for pain following surgery, only 3 or 4 patients developed subsequent problems with substance abuse. This is much lower than the actual rate of substance abuse in the general population (about 8%)."[38] This is the first time that I have been able to find the numerical reduction of just how unlikely that patients who need the opioids for genuine relief from their pain (post-surgery in this case) get addicted.

If someone is treated as they deserve and given the pain relief that they need in order to function, then their life can be improved hugely. Having adequate medical support means that someone could be able to enjoy time with their family, could do household jobs, could wash or dress themselves, could be able to play with their children, and could even attend university, school, or work – all the things that chronic pain prevents an individual from doing, and therefore that the withholding of pain relief will prevent. Similarly recognised by Laura Kiesel for Harvard Medical School Health Publishing:

> "What would help me at this point would be to have practitioners who are not only more well-versed in chronic pain but are willing to acknowledge its disabling impacts on their patients. In other words, doctors should start believing their patients when they say they are hurting. Validation is the first step toward a solution, or at the least, toward offering alternative adjustments and treatments that can accommodate a pain patient and bring them a better quality of life in the absence of a long-term cure".[39]

Kiesel herself recognised the one very key factor of both this section and this paper – *a doctor bringing a patient a better quality of life.*

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[38] Ibid.

[39] Kiesel (2017) *Chronic Pain, the 'Invisible' Disability.*

Section 4

Proving that it’s not mutually exclusive to save lives and to not damage chronic pain patients.

Why patient advocacy is important – hence the importance of my writing this – is that at present there are (as admitted by the CDC, people being harmed because of doctors listening to guidelines instead of listening to their patients. This is where I suggest phenomenology as a relevant and appropriate theory that should have been used to prevent harm.

As an approach, by phenomenology I mean “2the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions.”[40] The past cannot be changed – and from the lack of remorse there seems to be from the CDC they would not change it if they could – but to propose that there be an ethical move forward now that it’s known to them that individuals with just as much value to their lives are being harmed, and to keep ensuring the decline of opioid-related deaths while making a change in the harming of patients, then the CDC *need* to encourage doctors to listen to their chronic pain patients. Listening to patients and understanding their first-person perspectives on how the chronic pain is destroying their life, as well as paying attention to the other efforts the patients are making and other methods tried would allow, with careful monitoring and responsibility, opioids to be used for pain relief when they could successfully relieve a patient’s pain – not withheld from the patient because of the opioid crisis.

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[40] Woodruff Smith, D (2003) *Phenomenology.*

As a conceptual theory, phenomenology has been adopted by disability philosophers in the past. Eva Feder Kittay explores moral culpability within the 'ethics of care' and investigates the consequences of taking an objective approach, and the finite amount that it can tell us.[41] Both doctors and the CDC are in prominent positions of care for many patients, all of whom are there because they need support either with a short-term amount of pain or one that could be treated with other forms of medicines and analgesics. There are chronic pain patients apart from those whom opioid use wouldn't benefit because of the need for dosage development; those whose pain doesn't respond to opioid use; and those whose pain could be reduced by controlled and monitored opioid use, and whose lives could be significantly improved. This is, of course, subjective, and ultimately a choice brought about by both the doctors' and the CDC's response to an epidemic that is in no fault of chronic pain patients, who are however suffering as the collateral fallout. This subjectivity is a delicate matter, explored by Kittay:

> "The claim we want to look at more carefully now is whether, in caring for a subject, there has to be a subjective taking-up of care as care. Although there are objective measures by which we can determine that a person is not flourishing, these cannot definitively tell us that a person is flourishing, at least in the sense that I want to speak of it, because flourishing means that the needs and wants we try to satisfy are ones we truly care about. At best, an objective list, such as Martha Nussbaum's capabilities list, can provide the conditions that many or most people need to flourish (although Nussbaum's claim is that the list includes what all people require). To flourish as a conscious sentient being includes having the sense that we are flourishing, sensing that we are living the life we want to live, having a sense of well-being—as we ourselves conceive of well-being. To live a life that others might think is a flourishing life, and yet to feel no sense of well-being, is not yet to flourish. Let me clarify further how I am talking about flourishing in the context of an ethic of care.'"[42]

One's ability to flourish subjectively is ultimately dependent on one's subjective wellbeing, and the control that a doctor has – no matter that the CDC instructions are there to *guide* the doctor – is going to be vary between doctor and doctor as well as between patient and patient.

A specific philosophy that encompasses the whole point of using a phenomenological approach is the 'Kristen Bell philosophy' – a term not coined by Bell herself, but one that aligns perfectly. Bell discusses on Armchair Expert that her personal approach to ethics is to always ask herself "does this choice maximize happiness and minimize suffering?"[43] Although happiness as an ultimate goal would be blissful, if a chronic pain patient is seeking pain

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[41] Eva Feder Kittay, *Learning from My Daughter: The Value and Care of Disabled* (2019), §7.1 Is care an Important concept for philosophy? p.65.

[42] Ibid.

[43] Bell, K (February 2018) *Armchair Expert with Dax Shepard*.

relief and has reached a point of their illness where they are turning to opioid methods, then they are almost guaranteed to not be looking for happiness, but merely some alleviation of their suffering. To be so far down the scale of suffering from happiness can make a person desperate, which doesn't mean the patient doesn't have total rationality in their decision making even though it could be seen as posing a risk that they might turn to street drugs to relieve them of their pain if they can't get them through their doctor.

Conclusion

Whether or not I have successfully argued that from an ethical standpoint chronic pain patients were treated as collateral in a utilitarian principle depends on my proving that the quantity of lives was chosen over quality of lives, and that chronic pain patients were treated as a means to an end even though their lives are of just as much value as anyone else's.

The current use of normative utilitarianism has highlighted the number of people who genuinely need opioids for the pain relief they were invented for but fall outside of the 'cancer' or 'palliative care' categories because their illnesses are lifelong. As I have explored, this is ethically complex, because those with terminal illnesses have little addiction risk, and therefore can be made as comfortable as possible without the risk of developing a psychological dependency as well as just a somatic one. However, in view of the fact that the initial approach was chosen in terms of quantity over quality, the amount of years of suffering that opioids could prevent is much higher in someone with chronic pain than in someone with terminal illness. I have also shown that in terms of QALYs, it is far cheaper to fund the medication for someone with a terminal illness than for a 20-year-old whose life expectancy is not reduced by their illness. This said, I've already concluded that QALYs were never about the patient and are unlikely to guarantee safe and fair justice for chronic patients.

The approach taken by the CDC was aimed primarily at saving as many lives as possible in the opioid crisis, without consideration for the other consequences. This paper offers the reassurance that through a different ethical approach, the CDC could continually save lives in the same ways they have been doing while ensuring that chronic pain patients aren't treated as collateral damage. With an active ethical choice, saving lives and helping to save the quality of lives as well can be no longer mutually exclusive. It is not possible to ask the CDC to undo what they've already done, nor the doctors who acted on those guidelines and caused unnecessary pain; nor is it possible to promise that if chronic pain patients are allowed opioids to relieve their suffering some won't become addicted – in fact statistically some definitely will. However, without undermining their success in beginning to save lives, I am imploring doctors not to let their patients suffer if opioids do effectively relieve their pain within a properly supported and monitored environment.

The best ethic that can encompass this hybrid approach of saving both the quantity *and* quality of lives is the 'Kristen Bell philosophy' of happiness versus suffering. If there was ever a scale that perfectly aligns for both for those who are chronically ill and those who have unfortunately fallen victim to the opioid crisis but haven't overdosed and are therefore not included in the statistics, then the reduction of suffering compared to the striving for happiness aligns with both positive progress and negative failings in either of the categories' lives. Every one of these lives has the same value, a value that includes the very real potential to vulnerability. Because no matter if referring to a chronically ill patient, or an opioid addict who is a victim of the crisis, each have the same possibility of being made incredibly vulnerable by opioids: every individual should be on the same spectrum. A spectrum of happiness versus suffering.

Arenella's paper for the American Hospice foundation goes on to say:

> Many physicians and other health care professionals did not receive adequate training in how to expertly manage pain and other symptoms when they were going through school. Health care providers are also subject to societal misconceptions and biases, and physicians also have a somewhat exaggerated fear that the government drug enforcement agencies may penalise them if they prescribe 'too much' opioid medication …
>
> The bottom line is that a person in pain has a right to expect expert management of pain. Tell your doctor if you or your loved one is having pain, including where it is, how bad it is, how often you have it, whether it is consistent or intermittent, how long it lasts, what it feels like, what makes it better, what makes it worse, and how it affects your lie. Insist that it be addressed as a serious issue. If your doctor is unable to reduce the pain to a manageable level, ask for a referral to a palliative care expert or an expert in pain management.
>
> You and your loved ones don't have to live in pain. You have the right to be free from pain.[44]

Never has a sentence been so significant: "You and your loved ones don't have to live in pain" is exactly what I hope this paper will promote. No one can change the past, and no one deserves to suffer with an addiction – but that does not mean that chronically ill people should have to suffer being collateral damage any longer.

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[44] Arenella (undated) *Use of Opiates to Manage Pain.*

[Green Sticker]

Bibliography

Arenella, C. (undated) Use of Opiates to Manage Pain in the Seriously and Terminally Ill Patient [online], available at: _https://americanhospice.org/caregiving/use-of-opiates-to-manage-pain-in-the-seriously-and-terminally-ill-patient/ [accessed 09.05.2020].

Arrhenius, G. & Tannsjo, T. (2017) The Repugnant Conclusion 1 (*Stanford Encyclopaedia of Philosophy*) [online], available at: https://plato.stanford.edu/entries/repugnant-conclusion/#CouWelDifDepTemModFea [accessed 12.03.2020].

Bell, K. (2018) Armchair Expert with Dax Shepard [podcast], released 14.02.2018 via Spotify, Apple podcasts, etc., available at: https://open.spotify.com/episode/7d3NdDcjg1jQ7QBIt5gdpC?si=w4WV1xacTZWpq9slzOYvHw [Accessed 01.05.2020].

CDC (July 2016) ***Reported Law Enforcement Encounters Testing Positive for Fentanyl Increase Across US*** [online], available at: **https://www.cdc.gov/drugoverdose/data/fentanyl-le-reports.html** [accessed 10.03.2020].

CDC (2018), Persons Who Inject Drugs (PWID) [online], available at: https://www.cdc.gov/pwid/index.html [accessed 14.04.2020].

CDC (2019a) CDC's Response to the Opioid Overdose Epidemic (online), available at: https://www.cdc.gov/opioids/index.html [accessed 15.05.2020].

CDC (2019b) Calculating Total Daily Dosage Of Opioids For Safer Dosage [online], available at: https://www.cdc.gov/drugoverdose/pdf/calc*ulating_total_daily_dose-a.pdf* [accessed 23.03.2020].

CDC (June 2019) ***CDC Advises Against Misapplication of the Guideline for Prescribing Opioids for Chronic Pain*** [online] Available at: https://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.htmlhttps://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.html [Accessed 18.05.2020]

CDC (December 2019) ***The Three Waves of Opioid Overdose Deaths*** [online], available at: https://www.cdc.gov/drugoverdose/epidemic/index.html#three-waves [accessed 15.05.2020].

Doctors' Pain Pill Prescribing Habits at Odds with Current Guidelines, *Harvard Women's Health Watch* (April 2020) [online], available at: https://www.health.harvard.edu/pain/doctors-pain-pill-prescribing-habits-at-odds-with-current-guidelines [accessed on 11.05.2020].

Dowell, D., Haegerich, T. & Chou, R. (2019), No Shortcuts to Safer Opioid Prescribing, *New England Medical Journal* 380:2285-2287. DOI: 10.1056/NEJMp1904190, available at https://www.nejm.org/doi/full/10.1056/NEJMp1904190 [accessed 18.05.2020).

Driver, J (2009/2014 substantial review) The History of Utilitarianism (*Stanford Encyclopaedia of Philosophy*) [online], available at: https://plato.stanford.edu/entries/utilitarianism-history/ [accessed 14.04.2020].

Faculty of Pain Medicine of the Royal College of Anaesthetics (2016) Opioids Aware [online], available at: https://fpm.ac.uk/opioids-aware [accessed 18.04.2020].

Harvard Women's Health Watch (April 2020) *Doctors' pain pill prescribing habits at odds with current guidelines* [online], available at: https://www.health.harvard.edu/pain/doctors-pain-pill-prescribing-habits-at-odds-with-current-guidelines [accessed on 11.05.2020].

Kittay, E. F. (2019) *Learning from My Daughter: The Value and Care of Disabled Minds.* Oxford*:* Oxford University Press.

Kiesel, L. (2017) Chronic Pain: The 'Invisible' Disability [online], available at: https://www.health.harvard.edu/blog/chronic-pain-the-invisible-disability-2017042811360 [accessed 11.05.2020].

Marill, M. C. (May 2019) The Unseen Victims of the Opioid Crisis Are Starting to Rebel, *Wired* [online], available at: https://www.wired.com/story/the-true-victims-of-the-opioid-crisis-are-starting-to-rebel/ [accessed 01.04.2020].

Minaj, H. (2019) *Patriot Act*, *Volume 4, Episode 'Fentanyl', Netflix.* © Netflix, Inc. 1997-2020 [online], available at: https://www.netflix.com/watch/80991185?trackId=14170289&tctx=0%2C4%2C68ac5926-3284-498b-ab7e-2907f48ffe01-526124%2C6f00e777-ecdb-4f75-90a8-e134991fe265_45708823X3XX1583752423046%2C6f00e777-ecdb-4f75-90a8-e134991fe265_ROOT [accessed 09.03.2020].

National Vital Statistics System Mortality File [online], available at: https://www.cdc.gov/drugoverdose/images/epidemic/3WavesOfTheRiseInOpioidOverdoseDeaths.png [accessed 07.03.2020].

Papineau, D. (2020) *Naturalism* *(*Stanford Encyclopaedia of Philosophy) [online], available at: https://plato.stanford.edu/entries/naturalism/#MorFac [Accessed 02.04.2020].

Parfit, D (1986), Overpopulation and the Quality of Life., in P. Singer, ed., *Applied Ethics*, Oxford: Oxford University Press, 145–164. Reprinted in J. Ryberg and T. Tännsjö (eds.) 2004.

Prieto, L. and Sacristan, J. (2003) Problems and Solutions in Calculating Quality-Adjusted Life Years (QALYs), *Health Quality of Life Outcomes*, 1: 80 (December 19). DOI:10.1186/1477-7525-1-80 [online], available at: https://www.ncbi.nlm.nih.gov/pubmed/14687421 [accessed 01.05.2020].

Schatman, M. E. (2011) Identifying Abusers Prior to Initiating Chronic Opioid Therapy [online], available at: https://www.practicalpainmanagement.com/treatments/pharmacological/opioids/identifying-abusers-prior-initiating-chronic-opioid-therapy [accessed 01.04.2020]

Singh, R. and Pushkin, G.W. (August 2019) How Should Medical Education Better Prepare Physicians for Opioid Prescribing? *AMA Journal of Ethics*, 21(8):E636-641. DOI 10.1001/amajethics.2019.636 [online], available at: https://journalofethics.ama-assn.org/article/how-should-medical-education-better-prepare-physicians-opioid-prescribing/2019-08 [accessed 16.04.2020].

Sinnott-Armstrong, W. (2003, revised 2019) Consequentialism (*Stanford Encyclopaedia of Philosophy*) [online], available at: https://plato.stanford.edu/entries/consequentialism/ [accessed 05.02.2020].

Tennant, F. (2012) Sudden, Unexpected Death in Chronic Pain Patients [online], available at: https://www.practicalpainmanagement.com/sudden-unexpected-death-chronic-pain-patients [accessed on 14.05.2020].

Tennant, F. (2015) Managing Intractable Pain in Ehlers-Danlos [online webinar], available at: https://www.youtube.com/watch?v=pLw29ndmLcA [accessed 17.04.2020].

US Department of Health and Human Services, Substance Abuse and Mental Health Service administration, Locator Map [online], available at: https://findtreatment.samhsa.gov/locator [accessed 14.04.2020].

Woodruff Smith, D (2003) Phenomenology. [online], available at:

https://plato.stanford.edu/entries/phenomenology/ [accessed 02.05.2020].

World Health Organization (1999) WHOQOL: Measuring Quality of Life [online], available at: https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/ [accessed 10.03.2020].