

Educating and raising awareness of opioid addiction

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Introduction

Opioid addiction is still a major problem in America and costing society billions of dollars every year. Opioids abusers are more likely to use the Emergency Department [ED] than the non-abusers. ED visits that were opioid-related increased by 408 percent from 1994 – 2002 (Sigmon, 2006). In 2007, loss of workplace productivity contributed \$25.6 billion, healthcare costs contributed \$25.0 billion, and criminal justice costs contributed \$5.1 billion. It costs the hospitals millions of dollars due to opioids-related readmissions.

The lack of education is one of the problems in this population. Most patients are not aware of the risks and benefits of prescription opioids [pain medications]. They believe medications that are prescribed by physicians are completely safe. Many do not understand the risks of opioids and some become addicted after using them. When the prescribers stop writing prescriptions to patients due to addiction behaviors, patients began seeking for illegal street drugs like heroin. Once the patients have a history of substance abuse or labeled as “drug seeker”, they will face challenges asking for medication when they do experience pain. This educational video was created to educate patients on the history, risks, and benefits of pain medications so they can make informed decisions. Two theories were used to create this educational video: person-in-environment and person-centered.

The goal for this educational video is to education and raise awareness of opioid addiction. The whiteboard video has sketches that explain the history, risks, and benefits of opioids. This awareness could lower the opioids-related readmissions, which could lower hospitals cost, and possibly reduce the total cost of healthcare.

Description of project

Population served

Opioid addiction continues to be a huge problem in the United States. Between 2002 and 2007, non-medical use of prescription opioids grew from 11.0 million to 12.5 million (Maxwell, 2011). Each year, there are approximately 13,800 deaths and 250,000 emergency visits due to opioids abuse. Admissions to the Emergency Departments [ED] due to opioids-related are costing the hospitals millions of dollars every year, which lead to increasing in health insurance premiums. It costs tax payers trillions of dollars annually to pay into the health care system. Both federal and state levels have used policies to control this opioid epidemic by monitoring prescriptions and treating this population with evidence-based interventions.

Theoretical orientation

Professional social workers understand that every individual is different and unique. In order to treat each individual, person-in-environment and person-centered theories provide a fundamental focus in building the intervention. These theories focus more on the clients and address the problems/barriers and conditions that threaten patients' well-being. Focusing on these two theories in the educational video intervention would empower the patients and allow them the power to make their own decisions.

Initial introduction of proposed intervention

The whiteboard video will enhance the patients' knowledge of the risks/benefits of opioid addiction. The American Academy of Pain Medicine [AAPM] believes that both education and training are keys to reducing the opioid addiction (Grabois, 2012). The Academy has found that education for both prescribers and patients is critical to help people in pain and reduce the misuse of opioid. The video will educate that patients how to safely take their medications and prevent diversion. It is very important to follow the prescribers' direction when taking pain medications. It is also important to dispose the medications safely so no one would try to steal them. The video will also be in many languages, to serve different ethnicities and not just Caucasian.

Values and ethical considerations

The educational video intervention will meet the health care standards that were created by The National Association of Social Workers [NASW]. "The primary mission of social work profession is to enhance human well-being and help meet the basic needs of all people, with particular attention to the needs of people who are vulnerable, disenfranchised, oppressed, and living in poverty" (NASW, 2005, p. 16). It is an ethical obligation to alleviate the pain that people are experiencing, then educate and give them the autonomy of informed decision-making.

The video will meet MultiCare's mission "partnering for healing and a healthy future." In order to save the hospital costs while delivering best health outcomes, this educational video will teach patients the difference between chronic vs acute pain, and the prevention from misuse of opioids. The video will teach patients about personal risk factors and different treatment options for opioid addiction. It also meets the MultiCare's vision, which is "to be the Pacific Northwest's highest value system health." This educational video intervention will inform patients of the risks of pain medications so they can make their own informed decisions.

Background

Definition of need

Opioids have been used for thousands of years to treat moderate to severe, acute and chronic pain, and when non-opioids are not effective. Historically, opioids therapy was mainly for patients with cancer or end-of-life pain (Franklin, Sabel, Jones, Mai, Baumgartner, Banta-Green & Tauben, 2015). Opioids are very effective in reducing pain after surgical operations. Optimally, pain management should be used before, during and after the surgical operations. It was around mid-to-late 1980s that opioids were used to treat both chronic cancer pain and non-cancer pain [CNCP] (Franklin et al., 2015). At the time, there were studies that suggested that long-term use of opioids was safe to use and without dependence problems (e.g. abuse or addiction). Because of these studies, pain advocacy groups and specialists exert influence on medical boards and state representatives to change regulations that would encourage use of opioids in CNCP population (Franklin et al, 2015). Furthermore, pain was considered undertreated during the 1990s. Pharmaceutical companies started to aggressively market opioids drugs like: OxyContin® (oxycodone) and Vicodin® (hydrocodone). Prescribers began to write more prescription opioids to treat patients with chronic pain. Many physicians were untrained to treat for pain management. The National Center for Addiction and Substance Abuse reported an increase of more than 150 percent of prescription opioids from 1992-2002 (Maxwell, 2011). Many opioids users were at risks for opioids tolerance, opioids dependence, and opioids addiction.

History and scope of need

Opioids abuse increased when OxyContin was introduced by the Purdue Pharma Company. The increase of abuse was among adults (18-25 yrs. and 26+ yrs.), and adolescents (12-17 yrs.) (Sigmon, 2006). Treatment admissions increase from .08 percent in 1992 to 5.6 percent in 2008, and for heroin, 11 percent in 1992 to 14 percent. Those who were abusing their prescription medications turned to abuse heroin when their providers stopped prescribing pain medications because heroin was cheaper and easy to get on the street. The use of prescription opioids often leads to use of heroin as an alternative when patients who are substance use disordered are cut off from access to prescription opioids. The preferred prescription opioid is the generic methadone pills (\$8 per month), whereas OxyContin® costs \$176.50 for a month's supply.

History and scope of past efforts

Prescription opioids abusers are able to obtain their pills through various means and this is a huge problem. Both addicted and non-addicted users report that they can get prescription medications from friends, relative, or from doctors (Schreiner, 2012). Doctor shopping is a practice when the patients visit many doctors for pain and get pain prescriptions. There was no program to monitor the prescriptions so abusers were getting them very easily. Drug diversion is another contributed problem to this epidemic (Schreiner, 2012). It is the transferring of any legal prescribed medication from the person that was prescribed for and to another person for any illicit use. Some of pain clinics would prescribed excessive doses, which increase the volume of drugs available for diversion. In response to doctor shopping and drug diversion, the federal and numerous state governments have established prescription drug monitoring programs [PDMP].

Discussion

There are many reasons why opioids addiction is still an epidemic in America. In the 1990s, many prescribers were untrained in pain management (Hamilton, 2015). Purdue introduced OxyContin® in 1998 and did not submit the training video for physicians to the Food and Drug Administration [FDA] until 2011. From 1992 to 2002, inadequately trained doctors were overprescribing controlled substances; the president of Pain Specialists of Greater Chicago reported 22 million to 354 million annually. Aggressive marketing from pharmaceutical companies encourage doctors to increase prescriptions for opioids (Schreiner, 2012). Consumers know the medication so well that they began to request particular medication for pain from the doctors. Many people have no knowledge of opioids and think that non-medical use of prescription opioids drugs is safe. People believe that if the doctors are prescribing a drug, it must be safe. The lack of education is one of the problems in this population. Educating patients of the risks/benefits when taking opioids is one of the effective strategies to raise awareness of opioids addiction.

Risk/opportunities

Benefit of Project

Health care is one of the biggest social and economic problems that America is facing today. The rising cost of medical care and health insurance is impacting the lives of all Americans. The United States [US] spends about \$2.6 trillion dollars a year, which is more than 10 biggest spenders combined: Japan, Germany, France, China, the U.K., Italy, Canada, Brazil, Spain, and Australia (Mercola, 2015). The amount of money that is spent every year does not reflect the benefits we get back. The billions of dollars in waste is a combination of inefficient delivery of care and expensive administrative costs, unnecessary services, inflated prices, prevention failures, and fraud (Mercola, 2015). The health care expenditures in the US are at 15.3 percent of the GDP, yet these costs do not improve health outcomes (Mercola, 2015).

A study reported that opioids abuse costs society \$55.7 billion in 2007 (Meyer, Patel, Rattana, Quock, & Mody, 2014). Costs are grouped in three categories: health care, workplace, and criminal justice. Opioid abusers are more likely to use the Emergency Department [ED] than the non-abusers. ED visits that were opioids-related increased by 408 percent from 1994 – 2002 (Sigmon, 2006). In 2007, loss of workplace productivity contributed \$25.6 billion, healthcare costs contributed \$25.0 billion, and criminal justice costs contributed \$5.1 billion.

One of the main goals to save cost at MultiCare is lowering the number of readmissions. Readmissions cost the company a lot of money because Medicare will not reimburse when patients readmit with the same diagnoses. This new proposal could help save the company monetary resources due to addiction-related readmissions. When the patients are aware of the risks of opioids, they could make more informed decisions, which could lower the number of opioids abuse every year.

Patients deserve to know the risks and benefits of the medications that they are taking. Before they start taking opioid medication, before they become inadvertently addicted, that knowledge will empowers the patients to make their own informed decisions. They deserve to know treatment options that are available to treat their pain. Many patients do not know what opioids are and allow providers to make all the decisions for treatment. Instead, patients should have a say in their treatment and doctors should listen to their patients. This increases the value of care offered to our patients and meets our vision and mission statements.

Feasibility of project

There are many patients that come into the hospitals for overdose of heroin. Heroin has been a popular street drug in the Pacific Northwest. Heroin is cheap and very easy to get. Patients often turn to heroin when their providers stop prescribing pain RX prescriptions. Learning about the risks of opioids misuse could deter many patients from abusing them. The advantage of creating this video is that the cost is low. This investment could save many people from addiction and overdose. Additionally, this proposal fits with the mission and vision of MultiCare.

The costs might be a barrier. It costs capital to build the video, train personnel, and implement this proposal. There are many MultiCare Medical Clinics in the Pacific Northwest, so there will be many challenges and barriers along the way to get the plan going. However, the benefits of educating the patients and raising awareness outweigh the costs of opioid addiction.

Political climate & Liability (*community/public relations*)

The community would benefit from this proposal because it raises the awareness of opioids addiction. Opioid addiction is still an epidemic in this country. Heroin addiction continues to be a huge problem in the Pacific Northwest. Awareness of the risks and benefits of opioids could reduce the numbers of opioids-related admissions, which then could save costs.

The information in the video will come from online academic databases. These databases (EBSCOhost, and Proquest) have high-quality and high academic articles. Academic journals focus on very specialized information, with few pictures, and by educated men and women. These journals are reviewed by members of their peer group for accuracy before they can be published. Patients would get reliable facts that are the result of research and analyzed that they can trust.

Policy

The US health care system is going through a huge change. The Affordable Care Act [ACA] was designed to address the millions of people that are uninsured. The goal of ACA is to expand access to affordable and comprehensive health coverage, improve patient outcomes, and increase the efficiency and cost-effectiveness of the health care delivery system.

The goal of this proposal is increase awareness of opioids addiction and prevents patients from misusing opioids, consequently, this will lower the number of opioid-related admissions and help to control health care costs. The mission of this proposal is similar to the ACA, and that is health prevention. To succeed, we must educate our patients so they are aware of the risks/benefits of opioids. Education will empower them to make well-informed decisions.

Whiteboard educational video script

- VideoScribe software from Sparkol was used to create a whiteboard video, and then the video was uploaded to YouTube.
- Audio was recorded using Audacity software and imported into the scribe.

A. History of opioids

- Opioids have been used for thousands of years to treat moderate to severe, acute and chronic pain, and when non-opioids are not effective. Historically, opioid therapy was mainly for patients with cancer or end-of-life pain (Franklin, Sabel, Jones, Mai, Baumgartner, Banta-Green & Tauben, 2015).
- Opioids are very effective in reducing pain after surgical operations. It was around mid-to-late 1980s that opioids were used to treat both chronic cancer pain and non-cancer pain [CNCIP] (Franklin et al., 2015).
- During this time, there were studies that suggested that long-term use of opioids was safe to use and without dependence problem.

B. Overprescribing

- Because of these studies, pharmaceutical companies started to aggressively market opioid drugs like: OxyContin® (oxycodone) and Vicodin® (hydrocodone). Prescribers began to write more prescription opioids to treat patients with chronic pain. Many physicians were untrained and incompetent for pain management (Franklin et al, 2015).
- The National Center for Addiction and Substance Abuse reported an increase of more than 150 percent of prescriptions opioids from 1992-2002. Many opioids users were at risks opioids tolerance, opioids dependence, and opioids addiction (Maxwell, 2011).

C. Acute pain vs chronic pain

- Acute pain is a type of pain that last less than 3 to 6 months. It is related with tissue damage like a sprained ankle or a paper cut. You are encouraged to do stay active and do your normal things (Acute vs Chronic Pain, 2009).
- Chronic pain, the pain itself is a disease. Chronic pain can last for weeks, months, and even years (Acute vs Chronic Pain, 2009).
- Cancer pain is an example of chronic pain, whereas the pain after a surgery is an acute pain (Acute vs Chronic Pain, 2009).

D. Medications can help

- Many health experts have agreed that opioids are an effective treatment for pain from cancer, AIDS, other diseases, palliative care, and hospice care.

- The United Nations [UN] authorities, the Economic and Social Council, the World Health Assembly, and the World Health Organization [WHO] encourage governments to improve pain treatment, particularly in low-and middle-income countries [LMICs], by increasing the availability of opioids and promoting palliative care in their countries (Gilson et al., 2013).
- Three quarters of the world population has no access to proper pain relief treatment (Over 5 billion, 2015).

E. Risks

- Physical dependence is the body's adaptation to a particular drug. In other words, the individual's body gets used to receiving regular doses of a certain medication. When a medication is abruptly stopped or the dosage is reduced too quickly, the person will experience withdrawal symptoms (Richards, 2016).
- Tolerance is a condition that occurs when the body adapts or gets used to a particular medication, lessening its effectiveness (Richards, 2016).
- Addiction is a term used to describe patients' behaviors that may occur when their pain is not being treated adequately. Patients who are desperate for pain relief may watch the clock until time for their next medication dose and do other things that would normally be considered "drug seeking" behaviors, such as taking medications not prescribed to them, taking illegal drugs, or using deception to obtain medications (Richards, 2016).
- Following the exact instructions from the prescribers is one way to prevent opioid abuse.

F. Addiction behaviors

Although most chronic pain patients who take opioids on a long-term basis will become physically dependent on them, very few will ever become addicted to them. The rare few who do develop a problem are often highly susceptible to addiction due to a genetic predisposition. A chronic pain patient becoming addicted to opioid medications is definitely the exception rather than the rule (Richards, 2016). Some behaviors that may be suggestive of possible addiction include:

- Ingesting drugs in ways other than directed, such as crushing, snorting, or injecting.
- Taking medications more frequently or at higher dosages than prescribed.
- Frequent reports of lost or stolen prescriptions.
- Doctor shopping is a practice when the patients visit many doctors for pain and get pain prescriptions.
- Using multiple pharmacies.
- Drug diversion, or stealing drugs.
- Obtaining street drugs like heroin. The use of prescription opioids often leads to use of heroin as an alternative when patients who are substance use disordered are cut off from access to prescription opioids. Heroin is cheaper on the street and easy to get (Sigmon, 2006).

G. Common names for opioids

- Hydrocodone (Lorcet, Lortab, and Vicodin), oxycodone (OxyContin, Percocet, and Percodan), codeine (Tylenol 2s, 3s, and 4s), fentanyl (Duragesic) and morphine (MS Contin) (Maxwell, 2011).

H. Treatments

There are many ways to treat opioids addiction.

- Abstinence-oriented intervention is one way. Unfortunately, abstinence-oriented programs are not effective (Van & Haasen, 2006).
- Opioid-assisted maintenance programs are evidenced-based and most effective interventions in reducing heroin and prescription opioid use (Van & Haasen, 2006).
- The best studied and most effective opioid agonist for maintenance treatment is methadone. Other effective substances are: levo- α -acetylmethadol [LAAM], buprenorphine, and naltrexone (Van & Haasen, 2006).
- Facilities that are appropriate to treat pain are: doctor's clinics, hospitals, and pain clinics (Van & Haasen, 2006).

I. Opioid treatment agreement [OTAs]

- OTA is a contract between the patient and the doctor.
- The use of OTAs may improve clinical outcomes of opioid therapy and lower the abuse and drug diversion of prescription opioids (Savage, 2010).
- The primary goal of OTAs is to empower the patients and let them have the power to make decisions (Savage, 2010). OTAs allow the patients to consider the benefits and risks when taking such opioids.
- Many people have no knowledge of opioids and think that prescription opioids are safe. People believe that if the doctors are prescribing a drug, it must be safe. The lack of education is one of the problems in this population.

J. Prescription drug monitoring program [PDMP]

- PDMP was established to monitor prescription drugs and prevent misuse. Many states have implemented to lower prescription drug abuse and diversion (Reifler, Droz, Bailey, Schnoll, Fant, Dart & Bucher Bartelson, 2012)

- Washington is one of the 49 states with a PDMP since 2010. All PDMP collect standard set of information: the patient identity, drug and quantity dispensed, dispense date, dispenser identity, and prescriber identity (Reifler et al.,2012).

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K. Video

- <https://www.youtube.com/watch?v=scxyrXNEPDE>

References

- Acute vs Chronic Pain (2009). *Cleveland clinic*. Retrieved from <https://my.clevelandclinic.org/services/anesthesiology/pain-management/diseases-conditions/hic-acute-vs-chronic-pain>
- Franklin, G., Sabel, J., Jones, C. M., Mai, J., Baumgartner, C., Banta-Green, C., . . . Tauben, D. J. (2015). A comprehensive approach to address the prescription opioid epidemic in washington state: Milestones and lessons learned. *American Journal of Public Health, 105*(3), 463-469 7p. doi:10.2105/AJPH.2014.302367
- Gilson, A. M., Maurer, M. A., Lebaron, V. T., Ryan, K. M., & Cleary, J. F. (2013). Multivariate analysis of countries' government and health-care system influences on opioid availability for cancer pain relief and palliative care: More than a function of human development. *Palliative Medicine, 27*(2), 105-114. doi:10.1177/0269216312461973
- Maxwell, J. C. (2011). The prescription drug epidemic in the united states: A perfect storm. *Drug & Alcohol Review, 30*(3), 264-270. doi:10.1111/j.1465-3362.2011.00291.x
- Over 5 billion people worldwide lacking access to essential medicines, says UN report (2015). *UN news centre*. Retrieved from <http://www.un.org/apps/news/story.asp?NewsID=50230#.VtPakOZmMZw>
- Reifler, L. M., Droz, D., Bailey, J. E., Schnoll, S. H., Fant, R., Dart, R. C., & Bucher Bartelson, B. (2012). Do prescription monitoring programs impact state trends in opioid abuse/misuse? *Pain Medicine, 13*(3), 434-442. doi:10.1111/j.1526-4637.2012.01327.x
- Richards, K.L. (2016). Opioids: Addiction vs. Dependence. Retrieved from <http://www.healthcentral.com/chronic-pain/coping-279488-5.html>
- Savage, S. (2010). The patient-centered opioid treatment agreement. *American Journal of Bioethics, 10*(11), 18-19 2p. doi:10.1080/15265161.2010.519426
- Sigmon, S. C. (2006). Characterizing the emerging population of prescription opioid abusers. *American Journal on Addictions, 15*(3), 208-212. doi:10.1080/10550490600625624
- Van, d. B., & Haasen, C. (2006). Evidenced-based treatment of opioid-dependent patients. *Canadian Journal of Psychiatry, 51*(10), 635-646. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=22710445&site=ehost-live>

Societal Value- Social acceptance	<u>Not an issue</u>	<u>Invincible</u>	<u>Just the way it is</u>	<u>You can only do so much</u>	<u>I'm still young and healthy</u>	<u>Society approved</u>
Cause 4- Increase in usage			<u>Aging/ overdose</u>			
Cause 3- Increase in written prescriptions	<u>Lack of funding</u>	<u>Lack of finance/ insurance</u>	<u>Lost of friends</u>	<u>Hopeless</u>	<u>Denial of need</u>	<u>Pain prescriptions from PCP</u>
Cause 2- Many medical purposes	<u>Lack of education</u>	<u>Past care practices</u>	<u>Social isolation</u>	<u>Family gave up</u>	<u>Awareness of services</u>	<u>Abusing pain meds</u>
Cause 1- Availability	<u>Public Awareness</u>	<u>Health (in pain)</u>	<u>Loneliness</u>	<u>Lack of family supports</u>	<u>Reduced community connections</u>	<u>Addiction (disorder) started when young</u>
PROBLEM STATEMENT	Individuals are negatively impacted by opioids!					
Consequence 1- Cheap/easy to get prescriptions	<u>High usage (hospitals)</u>	<u>Poor health</u>	<u>Depression</u>	<u>Care/ finance</u>	<u>Lack of resources</u>	<u>Hard to quit</u>
Consequence 2- Increase of pain meds dependence/abuse	<u>High costs</u>	<u>High usage (ER)</u>	<u>Reduce functioning</u>	<u>Homeless</u>	<u>Lack of basic needs</u>	<u>Increase tolerance</u>
Consequence 3- Increase in spending \$\$\$	<u>Personal finances</u>	<u>Inconsistent health care</u>	<u>Less active</u>	<u>Unemployment</u>	<u>Difficult to get clean</u>	<u>Affect the organs</u>
Consequence 4- Broke	<u>Poverty</u>	<u>More ill</u>	<u>Health impacted</u>	<u>Feeling worthless</u>	<u>Overdose</u>	<u>Death</u>
Consequence 5- Homeless			<u>Illnesses</u>	<u>Suicide</u>	<u>Giving up</u>	

**Appendix B
Force Field Analysis**

1. Funding/money
2. Some people are actually suffering from chronic pain
3. There is a thin line between abusing pain medications and using it for medical purposes
4. Pain medications have many medical purposes (reduces stigma)
5. No one is aware that their respectable family members might be addicted to pain medications
6. The medical purposes of the drugs decrease the risk of taking the drugs (social acceptance).

**Restraining
Forces**

Goal: Increase awareness of opioid addiction

**Driving
Forces**

1. Celebrity addiction (Celebrity Rehab with Dr. Drew TV show)
2. Education about drugs and health (Prevention)
3. Rules/regulations on pain medication prescriptions.
4. War on drugs.
5. Opioid addiction awareness campaign
6. Research & outreach
7. Addiction awareness month

**Appendix C
Topical Templates**

Topical Template # 1

<p>Citation: Include Full Citation</p> <p>(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)</p> <p>MAXWELL, J. C. (2011). The prescription drug epidemic in the united states: A perfect storm. <i>Drug & Alcohol Review</i>, 30(3), 264-270. doi:10.1111/j.1465-3362.2011.00291.x</p>
<p>Themes: (which subheading(s) does this work address?)</p> <ul style="list-style-type: none"> • Historical and current understanding • Impact of economics, difference and diversity • Needs • Most effective
<p>Key content (new information) & connection to your project (what part of the story does the information provide?):</p> <p>(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?</p> <ol style="list-style-type: none"> 1. It discusses about the opioids abuse was not a big issue until Oxycontin introduced by Purdue Pharma in 1996 and aggressively marketed (History) (1). 2. Instead of increasing public awareness; it mentioned the lack of accurate information for public health officials and patients (2). Drug diversion and ‘doctor shoppers’ contribute to the problem. Information limited because of ICD-10 codes. 3. Intervention strategy include: mandatory training programs for PCP, and educational programs for prescribers. Patients, treatment clinics in rural areas, Prescription Drug Monitoring Programs (PDMP) to monitor prescriptions, narcotic analgesics was high among 65 and older (2&3). Nurse management model can enhance monitoring and reduce morbidity or mortality (6). 4. Requiring manufacturer of long-lasting and extended-release opioids 5. Abusers are increasingly White and equal in male/female (5). Opioid problems tend to be concentrated in small cities and non-metropolitan areas (5). <p>Contribution to article:</p> <p>The historical and current understanding of prescriptions dependence.</p>

Topical Template # 2: Prescription Opioid Abuse: A Literature Review of the Clinical

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Meyer Roxanne, Patel Anisha M., Rattana Stacy K., Quock Tiffany P., and Mody Samir H.. Population Health Management. December 2014, 17(6): 372-387. doi:10.1089/pop.2013.0098.

Themes: (which subheading(s) does this work address?)

- Impact of economics, difference and diversity.
- Historical and current impact.

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. Discusses about clinical, prescription trends, comorbidity among abusers, economic burden, and cost of prescription. Sale of prescription drugs over the Internet was discussed.
2. The article discusses the societal costs of prescription opioid abuse. It answers question 2.
3. Physician in CA are required to complete 12 hours of pain management. It spoke about drug diversion: doctor shopping, theft, illegal Internet pharmacies, prescription forgeries, and illicit prescription by physicians.
4. Monitoring programs like Researched Abuse, Diversion, and Addiction-Related Surveillance System (RADARS) and prescription drug monitoring programs (PDMPS) (p.13)
5. Major pharmacies require pharmacists to contact the prescribing physician (p.13). Additionally, monitoring payers to lower potential misuse from physicians. This article brought all the costs of prescription abuse.

Contributions to article:

Drug abuse poses a substantial impact to society in terms of clinical and economic burden.

Topical Template # 3

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Sigmon, S. C. (2006). Characterizing the emerging population of prescription opioid abusers. *American Journal on Addictions, 15*(3), 208-212. doi:10.1080/10550490600625624

Themes: (which subheading(s) does this work address?)

- Impact of relevant developmental stages
- Impact of economics difference and diversity

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. Rise in prescription opioids: oxycodone (eg, OxyContin, Percodan), hydrocodone (eg, Vicodin), and hydromorphone (Dilaudid)
2. Prescription opioid abuse increase more than 400% between 1990–2000, increase has been seen in all groups (18-25, 26 +, 12-17). The study found 49% primary drug was prescription opioid, 51% were primary heroin abusers (p.2).
3. Prescription opioid users use smaller amounts per day compared to heroin users. Suggesting lower severity among prescription opioid abusers (p.2).
4. Prescription opioid abusers reported less current and lifetime IV drug use than herein users. This tells that the preference for non-injection routes of opioid administration is more favorable treatment outcome.
5. Characteristics of prescription opioids and illicit opioid abusers.

Contributions to article:

Treatment Episode Data Set indicate that 88% of prescription opioid treatment admissions were white compared with 47% of heroin admissions (p.4).

Topical Template # 4

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Gilson, A. M., Maurer, M. A., Lebaron, V. T., Ryan, K. M., & Cleary, J. F. (2013). Multivariate analysis of countries' government and health-care system influences on opioid availability for cancer pain relief and palliative care: More than a function of human development. *Palliative Medicine*, 27(2), 105-114. doi:10.1177/0269216312461973

Themes: (which subheading(s) does this work address?)

- Cultural, systemic, and global influences
- Historical and current understanding

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?)

1. There is a large disparity in opioid consumption between high-income countries and low-and middle-income countries (LMICs) (p.2).
2. Americas region, dominated by high-income countries, has high consumption of opioid analgesics. LMICs lack of available opioids.
3. Prescription opioid users use smaller amounts per day compared to heroin users. Suggesting lower severity among prescription opioid abusers (p.2). Higher Human Development Index (HDI) = greater its Total ME (morphine consumption) value (p.4)
4. Countries had greater opioid consumption when palliative care was more fully integrated into the country's health care infrastructure (p.5).
5. Interventions: Allow those physicians to prescribe who pass a pain management training course. Prescribing regulations need to be modified (p.8).

Contributions to article:

The benefits of opioids analgesics and why our country has such high consumption.

Topical Template # 5

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Fine, R. L. (2007). Ethical and practical issues with opioids in life-limiting illness. *Baylor University Medical Center Proceedings*, 20(1), 5-12 8p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=106165990&site=ehost-live>

Themes: (which subheading(s) does this work address?)

- NASW ethical practice guidelines

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. The dilemma that doctors go through when prescribing opioids for life-limiting illnesses. The ethics of pain management.
2. Three barriers to effective pain management: unjustified ethical concerns; misconceptions about dependency, addiction, and tolerance with opioid use; and misunderstandings about basic opioid pharmacology.
3. Fine said opioids are only meds that are effective for pain level 9-10. Not giving patients opioids to relieve their pain is wrong. Dependence is normal. There is a difference between dependence and addiction.
4. Ethical concept of double effect: the treatment must be the only means to meet the end desired, the physician must intend only the good effect, good effect must outweigh any unintended bad effect.
5. Opioid prescriptions are effective controlling the pain when use appropriately

Contributions to article:

The ethical dilemmas that physician go through when prescribing opioids for pain management.

Topical Template # 6

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Savage, S. (2010). The patient-centered opioid treatment agreement. *American Journal of Bioethics*, 10(11), 18-19 2p. doi:10.1080/15265161.2010.519426

Themes: (which subheading(s) does this work address?)

- The role of theory

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. An opioid treatment agreements (OTAs) that is **patient-centered** will be more effective protecting the physicians and meet obligations for the clients.
2. The use of OTAs may improve clinical outcomes of opioid therapy for individual patients and reduce the public health problem of prescription opioid misuse.
3. OTAs give the clients and providers the goals and details of the structure of care.
4. Patient-Centered OTA supports autonomy.
5. OTAs allow cooperation between patients and providers and shared decision making.

Contributions to article:

Patient-Center treatment for opioids management.

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

McDonough, M. (2013). Opioid treatment of opioid addiction. *Australian Prescriber*, 36(3), 83-87. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=88151419&site=ehost-live>

Themes: (which subheading(s) does this work address?)

- Needs identified
- Research intervention

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. There is a substantial evidence base for opioid substitution treatment program.
2. The drugs used are: methadone, naltrexone, and buprenorphine with or without naloxone
3. Alternative therapies: abstinence-focused programs, behavioral interventions – particularly contingency management approaches – and self-directed interventions such as Narcotics Anonymous.
4. Opioid substitution therapy is mainly used for long-term drug rehabilitation.
5. Methadone (a full agonist), buprenorphine (a partial agonist) and naloxone and naltrexone (antagonists).

Contributions to article:

Opioid substitution treatment program or methadone program

Topical Template # 8

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Van, d. B., & Haasen, C. (2006). Evidenced-based treatment of opioid-dependent patients. *Canadian Journal of Psychiatry*, 51(10), 635-646. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=22710445&site=ehost-live>

Themes: (which subheading(s) does this work address?)

- Research intervention
- Needs identified

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. Three phases of treatment of heroin: detoxification, relapse prevention, and maintenance treatment. All phases use opioid-assisted treatment
2. Discussion of using only agonist or mixing agonist and antagonist. Pharmacotherapy is also used to relieve opiate withdrawal symptoms
3. Different drugs are used for treatment: methadone, naltrexone, buprenorphine. There are more alternatives, but these three are very popular.
4. Another example of patient-centered. Naltrexone-assisted detoxification is mainly use for pregnant women.
5. There need to be an opioid-assisted program to help opioid abusers. Methadone program is evidenced-based to be effective.

Contributions to article:

The evidenced based treatment of opioid dependent patients, focusing on heroin with substance use disorder.

Topical Template # 9

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Reifler, L. M., Droz, D., Bailey, J. E., Schnoll, S. H., Fant, R., Dart, R. C., & Bucher Bartelson, B. (2012). Do prescription monitoring programs impact state trends in opioid abuse/misuse? *Pain Medicine*, 13(3), 434-442. doi:10.1111/j.1526-4637.2012.01327.x

Themes: (which subheading(s) does this work address?)

- Potential intervention (Macro)
- Research intervention

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?)

1. State prescription monitoring program (PMPs) are associated with a reduction in this increasing time trend.
2. The research focused on two RADARS Sytem Programs, Poison Center and Opioid Treatment
3. Results: states with standard PMPs were expected to have slower increase in opioid misuse over time than states without PMPs and states with superior PMPs were expected to have even smaller increases over time when compared to states without PMPs.
4. RADARS System Poison Center and Opioid Treatment Programs support that PMPs are associated with mitigation of increasing opioid abuse and misuse over time.
5. WA State initiated PMP before 2003.

Contributions to article:

The effectiveness of State prescription monitoring program (PMPs).

Topical Template # 10

Citation: Include Full Citation

(Use one topical template for individual key informants, including their name and contact information. For focus groups, use one template for aggregate answers, noting the names and contact information of participants.)

Katzman, J. G., Comerci, G. D., Landen, M., Loring, L., Jenkusky, S. M., Arora, S., . . . Geppert, C. M. A. (2014). Rules and values: A coordinated regulatory and educational approach to the public health crises of chronic pain and addiction. *American Journal of Public Health, 104*(8), 1356-1362. doi:10.2105/AJPH.2014.301881

Themes: (which subheading(s) does this work address?)

- Educational intervention
- Potential intervention

Key content (new information) & connection to your project (what part of the story does the information provide?):

(e.g. Does it support the need you believe exists, or does this article offer a differing view? Does it have an intervention strategy, or model, or theory that contributes to your project? Does it offer suggestions for intervention? What stands out about his article and how does it tie to your project?

1. In the 90s, medical boards and accrediting agencies stressed the need for pain to be assessed and effectively treated, which lead to aggressively market opioids and other drugs to treat chronic pain.
2. New Mexico adopted a values-based educational approach as primary intervention to improve practitioner management of both pain and addiction, mandating continuing medical education (CME) training in treating of chronic pain (5 hours).
3. Results: comparing pre- and postcourse scores demonstrated a reduction in benzodiazepine prescription filled. Additionally, decline in high-dose opioid prescriptions.
4. This is a type of macro policy educational intervention.
5. Mandating a 5-hour CME course covers best practices in chronic pain and addiction management. It improved clinician knowledge, attitude, and self-efficacy.

Contributions to article:

This is an educational intervention.

Appendix D Outline

1. The historical and current understanding of the topic or project target population,
 - A. Template 1: It discuss about the opioids abuse was not a big issue until Oxycontin introduced by Purdue Pharma in 1996 and aggressively marketed (History) (1).
 - B. Template 10: In the 90s, medical boards and accrediting agencies stressed the need for pain to be assessed and effectively treated, which lead to aggressively market opioids and other drugs to treat chronic pain.
 - C. Template 2: Between 2002 and 2007, nonmedical use of prescription pain relievers grew from 11.0 million to 12.5 million in the US.
 - D. Template 3: 400 % increase from 1990 and 2000.

2. The impact of economics, difference and diversity
 - A. Template 2: Discuss about clinical, prescription trends, comorbidity among abusers, economic burden, and cost of prescription. Sale of prescription drugs over the Internet was discussed.
 - B. Template 3: Increases have been seen across all age groups (18-25 years and 26+ yrs.) and adolescents (12–17 yrs.).

3. The impact of relevant developmental stages (of the population, or project evolution).
 - A. Template 3: Rise in prescription opioids: oxycodone (eg, OxyContin, Percodan), hydrocodone (eg, Vicodin), and hydromorphone (Dilaudid).
 - B. Template 2: An increase of 124% in the rate of unintentional overdose deaths was reported between 1999 and 2007.

4. Cultural, systemic, and global influences
 - A. Template 4: Americas region, dominated by high-income countries, has high consumption of opioid analgesics. LMICs lack of available opioids.
 - B. Template 1: Increased use of methadone as a pain medication due to aggressive marketing of pharmaceutical companies and lower costs. People were under treated for pain in the 90s.

5. NASW ethical practice guidelines; identify areas for potential ethical dilemmas, and/or ways in which ethical concerns are addressed.
 - A. Template 5: The dilemma that doctors go through when prescribing opioids for life-limiting illnesses. The ethics of pain management.

6. Identify and discuss the role theory(ies) have on the structure of the project and potential services.
 - A. Template 6: An opioid treatment agreements (OTAs) that is **patient-centered** will be more effective protecting the physicians and meet obligations for the clients.

7. Which Need(s) Exist in relation to this topic, population or project

- A. Template 7: There is a substantial evidence base for **opioid substitution treatment** program. The drugs used are: methadone, naltrexone, and buprenorphine with or without naloxone
 - B. Template 8: Different drugs are used for treatment: methadone, naltrexone, buprenorphine. There are more alternatives, but these three are very popular.
8. Contributing research interventions influencing the design of the project.
- A. Template 8: Three phases of treatment of heroin: detoxification, relapse prevention, and maintenance treatment. All phases use opioid-assisted treatment
 - B. Template 7: Opioid substitution therapy is mainly used for long-term drug rehabilitation.
9. Identify all potential micro, mezzo and/or macro level interventions to resolve, in whole or in part, the emerging needs (even though you may only work on a portion of this information).
- A. Template 9: State prescription monitoring program (PMPs) are associated with a reduction in this increasing time trend.
 - B. Template 8: Methadone program would be a mezzo.
10. Which ideas sound most effective to you at this point?
- A. Template 9: States with standard PMPs were expected to have slower increase in opioid misuse over time than states without PMPs and states with superior PMPs were expected to have even smaller increases over time when compared to states without PMPs.
 - B. Template 10: This is a type of macro policy educational intervention.
11. Template 13, 14 – responses from key informants.
- A. Which ideas sound most effective to you at this point? Identify your ideas for the project under consideration.

Template 10: suggested interventions to meet current need
Templates from focus group or key informants.

- B. What challenges are there to be worked out, what is well supported by the data gathered to date, and what still remains to be answered?

This is answered by thinking about all you have learned and moving towards a decision on an intervention, but some missing pieces you still need to learn are:

Appendix E

Opioids Addiction Information Report

Introduction

Opioids addiction continues to be a huge problem in the United States. Between 2002 and 2007, non-medical use of prescription opioids grew from 11.0 million to 12.5 million (Maxwell, 2011). Each year, there are approximately 13,800 deaths and 250,000 emergency visits due to opioid abuse. Furthermore, thousands of opioid abusers admitted into treatment facilities every year. Prescription opioids abusers use more healthcare costs than non-abusers. Abused prescription opioids include hydrocodone (Lorcet, Lortab, and Vicodin), oxycodone (OxyContin, Percocet, and Percodan), codeine (Tylenol 2s, 3s, and 4s), fentanyl (Duragesic) and morphine (MS Contin) (Maxwell, 2011). Methadone is the preferred drug for opioid-assisted treatment in America, and a common primary drug of abuse. Both federal and state levels have used policies to control this opioids epidemic. Educating patients is one of the effective strategies to raise awareness of opioids addiction.

Historical and current understanding

Opioids have been used for thousands of years to treat moderate to severe, acute and chronic pain, and when non-opioids are not effective. Historically, opioid therapy was mainly for patients with cancer or end-of-life pain (Franklin, Sabel, Jones, Mai, Baumgartner, Banta-Green & Tauben, 2015). Opioids are very effective in reducing pain after surgical operations. Optimally, pain management should be used before, during and after the surgical operations. It was around mid-to-late 1980s that opioids were used to treat both chronic cancer pain and non-cancer pain [CNCP] (Franklin et al., 2015). At the time, there were studies that suggested that long-term use of opioids was safe to use and without dependence problems (e.g. abuse or addiction). Because of these studies, pain advocacy groups and specialists exert influence on medical boards and state representatives to change regulations that would encourage use of opioids in CNCP population (Franklin et al, 2015). Furthermore, pain was considered undertreated during the 90s. Pharmaceutical companies started to aggressively market opioid drugs like: OxyContin® (oxycodone) and Vicodin® (hydrocodone). Prescribers began to write more prescription opioids to treat patients with chronic pain. Many physicians were untrained and incompetent for pain management. The National Center for Addiction and Substance Abuse reported an increase of more than 150 percent of prescriptions opioids from 1992-2002 (Maxwell, 2011). Many opioids users were at risks opioids tolerance, opioids dependence, and opioids addiction. Opioids are ingested by oral, parental, and neuraxial routes.

Opioids abuse increased when OxyContin was introduced by the Purdue Pharma Company introduced. The increase of abuse was among adults (18-25 yrs. and 26+ yrs.), and adolescents (12-17 yrs.) (Sigmon, 2006). Treatment admissions increase from .08 percent in 1992 to 5.6 percent in 2008, and for heroin, 11 percent in 1992 to 14 percent. Abusers use heroin because it was much cheaper and easy to get on the street. The use of Rx opioids often leads to use of heroin as an alternative when patients whom are Substance Use Disordered are cut off from access to Rx opioids. The preferred Rx opioid is the generic methadone pills (\$8 per month), whereas OxyContin® costs \$176.50 for a month's supply. This is why treatment facilities use methadone to treat addiction.

Impact of economics, difference and diversity

Prescription opioids abuse costs society a billions of dollars a year. A study reported that opioid abuse costs society \$55.7 billion in 2007 (Meyer, Patel, Rattana, Quock, & Mody, 2014). Costs are grouped in three categories: health care, workplace, and criminal justice. Opioids abusers are more likely to use the Emergency Department [ED] than the non-abusers. ED visits that were opioid-related increased by 408 percent from 1994 – 2002 (Sigmon, 2006). In 2007, loss of workplace productivity contributed \$25.6 billion, healthcare costs contributed \$25.0 billion, and criminal justice costs contributed \$5.1 billion. These costs were opportunity costs that could have been used in another sector to benefit the country. “There is a large disparity in opioid consumption between high-income countries and low-and middle-income countries [LMICs]” (Gilson, Maurer, Lebaron, Ryan & Cleary, 2013, p.2). Wealthy countries with established palliative care infrastructures like North America consumes more opioids analgesics than LMICs (e.g. Asia, Africa, and Latin America). Factors that influence low opioids consumption include: lack of palliative care infrastructure, shortage of physicians, and government investment to healthcare (e.g. continuing medical education for practitioners, and purchasing essential medicines). The potential abuse of opioids in America is partially due to the availability of opioids.

The study in the article suggested that prescription opioid abusers may have less severe dependence than heroin abusers (Sigmon, 2006). Heroin users are using larger amount a day comparing to the opioid users to get the same effect. Thus, heroin users spend \$1200 a month verses prescription opioids users with \$800 prior to treatment. “Prescription opioid users reported significantly less lifetime and past year intravenous injection drug use than heroin users” (Sigmon, 2006, p. 3). Heroin users are at high risk of contracting diseases through needles. Lastly, prescription opioid users appeared to have less family and social problems than heroin users. With less problems in their lives, opioid abusers could be more likely to recover than heroin users.

Impact of relevant developmental stages

National and states regulations have decrease the rate of opioids abuse, however, opioid overdose deaths continue to rise in the rural and urban areas. A study of 10,693 urban and rural residents reported 80.2 percent used nonmedical prescription opioids, 38.1 (Wang, Fiellin & Becker, 2014). Urban residents with a prescriber were most likely older, non-white, higher education, unemployed, and with insurance. They are more likely to have psychological distress. Rural residents with a prescriber were mostly non-white, and have insurance. Urban residents between 26-50, are more likely to have a physician source than urban residents between 18-25 (Wang, Fiellin & Becker, 2014). This shows that the older age group are more likely to get prescriptions legally than the younger group. When younger group cannot get prescriptions, they are more likely to use drugs that are on the street, heroin. Rural residents are more likely to get prescription opioids from a physician, whereas majority of urban residents get them from non-physician sources. In the urban areas, people abuse prescription drugs more frequently together with illicit drugs to increase their effect or self-medicate. And, rural areas lack of treatment facility for people with substance use disorder, patients have to drive 30-40 miles from home to get methadone treatment everyday (Wright, Personal communication, November 23, 2015). Lastly, individuals who have died from prescription overdoses have predominantly been white rural residents.

Cultural, systemic, and global influences

Cancer patients often experience pain both from treatment and the illness. “Globally, millions of people suffer from unrelieved pain, particularly in low-and middle-income countries [LMICs], where cancer and AIDS typically are diagnosed in the late stage when pain often is severe” (Gilson et al., 2013, p. 2). Many health experts have agreed that opioids are effective treatment for pain from cancer, AIDS, other diseases, palliative care, and hospice care. However, because opioids are controlled medicines, there are many barriers for medical use. United Nations [UN] authorities, the Economic and Social Council, the World Health Assembly, and the World Health Organization [WHO] encourage governments to improve pain treatment, particularly LMICs, by increasing the availability of opioids and promoting palliative care in their countries (Gilson et al., 2013). Although there is a potential abuse with opioids, they are the most effective in treatment of severe pain. Many organizations support the use of opioids in healthcare systems when they are controlled and monitored. The International Narcotics Control Board [INCB] understands the benefits of opioids analgesics, but encourages governments to address abuse and drug diversion while maintaining their availability for medical and scientific purposes (Gilson et al., 2013). Due to limited regulations and lack of trainings, doctors practicing in the 90s where overprescribing pain medications; as a result, many people became dependent and abuse opioids. Today, there are many programs to monitor and control opioids consumption; and there is a decrease in the number of patients getting dependent on the medications.

The NICB, the WHO and other health experts reported that high-income countries consume more opioids than LMICs. A published study found that the Americas region’s consumption of opioids are increasing (Gilson et al., 2013). Countries in Asia, Africa, and Latin America have many barriers that limit opioid availability. Human Rights Watch surveyed 40 palliative care in 40 countries and found the lack in available opioids and regulatory barriers. Factors that influence opioid consumption patterns include: palliative care infrastructure, opioid prescribing education, physician density, and government investing in healthcare (e.g. buying important medicine or creating pain management educational programs for prescribers) (Gilson et al., 2013). The article noted that countries consume more opioids when palliative care was a part of their health care infrastructure. Additionally, the governments must invest in essential medicines or physicians cannot prescribe medications that are unavailable.

NASW ethical practice guidelines

Even though opioids are best at relieving pain, there are still barriers that interfere with prescribing them. The development of strict regulations and lack of knowledge of pain management have discourage physicians from prescribing opioids to treat pain patients. “The medical professional’s ethical duty to relieve pain is well documented. The commitment to control pain and relieve suffering is at the core of a physician’s obligation to patients” (Reddy, 2006, p. 6). Chronic pain can lower the person’s functioning in areas of his/her life and affects the person’s quality of life. If left untreated, the person could become depressed or suicidal. “The primary mission of social work profession is to enhance human well-being and help meet the basic needs of all people, with particular attention to the needs of people who are vulnerable, disenfranchised, oppressed, and living in poverty” (National Association of Social Workers [NASW], 2005, p. 16). When pain is preventing patients from having a functional life, social workers must assess and advocate for the patients. Although pain is subjective, social workers can identify behaviors that clearly shows addiction, such as: obtaining street drugs, buying opioids from non-medical sources, forging prescription, doctor shopping, drug diversion, and

selling prescriptions. “Social workers in health care settings shall demonstrate a working knowledge of current theory and practice and integrate such information into practice” (NASW, 2005, p. 21). As medical social workers, ones must have knowledge of the advantages and disadvantages of opioids and teach the patients. Other than opioids therapy for pain, social workers must be aware of other treatment modalities. Lastly, social workers must implement interventions and build care plans that would promote well-being and ensure continuum of care.

The role of theories

Opioid treatment agreement [OTAs] is a contract between the patient and the doctor; it protects the doctor from litigation and monitor patient’s compliance. This agreement can facilitate communication and care between doctors and patients. The use of OTAs may improve clinical outcomes of opioid therapy and lower the abuse and drug diversion of prescription opioid misuse (Savage, 2010). Patient-centered OTAs will address the patients’ societal problems/barriers and conditions that threaten patients’ well-being. Patient-center OTAs will focus on the patients and not just to protect the providers. The primary goal of OTAs are to empower the patients and let them have the power to make decisions (Savage, 2010). OTAs allow the patients to consider the benefits and risks of opioids when taking such opioids. It also let the patient know that the physician has consider all the risks and benefits of opioids for each patient. Patient-center OTAs is also similar to the person-in-environment perspective. Health care staffs should consider the psychosocial conditions when creating the care plans for the patients. Care plans assure that both the patient and clinician understand the goals of treatment, the structure of care, and conditions under which treatment may be continued or discontinued.

Needs

There are many reasons why opioid addiction is still an epidemic in America. In the 90s, many prescribers were untrained in pain management (Hamilton, 2015). Purdue introduced OxyContin® in 1998 and did not submit the training video for physicians to the Food and Drug Administration [FDA] until 2011. From 1992 to 2002, inadequate doctors were overprescribing controlled substances, the president of Pain Specialists of Greater Chicago reported 22 million to 354 million annually. Aggressive marketing from pharmaceutically companies encourage doctors to increase prescriptions for opioids (Schreiner, 2012). Consumers know the medication so well that they began to request particular medication for pain from the doctors. Many people have no knowledge of opioids and think that non-medical use of prescription opioids drugs are safe. People believe that if the doctors are prescribing a drug, it must be safe. The lack of education is one of the problems in this population.

Prescription opioids abusers are able to obtain their pills through various means is another problem. Both addicted and non-addicted report that they get prescription medications from friends, relative, or from doctors (Schreiner, 2012). Doctor shopping is a practice when the patients visit many doctors for pain and get pain prescriptions. There was no program to monitor the prescriptions so abusers were getting them very easily. Drug diversion is another contributed problem to this epidemic (Schreiner, 2012). It is the transferring of any legal prescribed medication from the person that was prescribed for and to another person for any illicit use. Some of pain clinics would prescribed excessive doses, which increase the volume of drugs available for diversion. In response to doctor shopping and drug diversion, the federal and numerous state governments have established prescription drug monitoring programs [PDMP].

Research interventions

Prescription drug monitoring program was established to monitor prescription drugs and prevent misuse. Many states have implemented to lower prescription drug abuse and diversion (Reifler, Droz, Bailey, Schnoll, Fant, Dart & Bucher Bartelson, 2012). Washington is one of the 49 states with a PDMP since 2010. All PDMP collect standard set of information: the patient identity, drug and quantity dispensed, dispense date, dispenser identity, and prescriber identity. According to Reifler et al. (2012), PDMP are effective lowering the opioid abuse and misuse. Abstinence-oriented interventions are achieved in two phases: detoxification phase is when opioid is discontinued (reduction in opioid use, then termination), and relapse prevention is to stay abstinence. Unfortunately, abstinence-oriented programs are not effective. Opioid-assisted maintenance programs are evidenced-based and most effective interventions in reducing heroin and prescription opioid use (Van & Haasen, 2006). Opioid-assisted programs have been implemented in many countries, however, the substances of choice are different. The best studied and most effective opioid agonist for maintenance treatment is methadone. Other effective substances are: levo- α -acetylmethadol [LAAM], buprenorphine, and naltrexone. According to Perry, (Personal communication, November 24, 2015) pregnant woman attempting to quit heroin cold-turkey can be very dangerous for the person and the baby. It is best to get help from professionals.

Potential interventions

Prescriber education is a strategy to reduce prescription drug abuse and misuse. “The Food and Drug Administration approved the Risk Evaluation and Mitigation Strategy [REMS], requiring drug manufacturers to offer free or low-cost training programs to licensed prescribers in the US” (Green, Erg, Dauria & Rich, 2014, p. 4). The training includes: knowledge and awareness of holistic approach to pain treatment, appropriate opioid prescribing practices, use of prescription monitoring program [PMP], addiction identification, and referral to treatment. Another type of education program is the continuing medical education [CME], the course is design to train prescribers for opioid-dependence. Online CME programs provide learners with more flexibility and opportunities to engage in virtual discussions (Ryan, Lyon, Kumar, Bell, Barnet & Shaw, 2007). The study in this article indicated that online CME course was equally as effective as the face-to-face course in preparing prescribers to treat pain and opioid dependence. In this study, participants also rated highly of the CME course with quality learning experience and outcomes.

Most effective strategy

Education is one of the effective treatment to this population. There are four primary areas of intervention: treatment, education, advocacy, and research (Byrne, Lander & Ferris, 2009). For social workers, treatment should be multidisciplinary, abstinence-based approach, and a team of social workers and physicians working together using evidenced-based treatment. Opioid-assisted therapy alone does not give the addicted person the social support, alternative patterns of behavior, and cognitive tools for recovery. Advocacy is also needed to encourage the effective use of this medication and prevent the misuse (Byrne, Lander & Ferris, 2009). Recovery requires necessary support, education, and medication management. Long-term recovery is possible when the patients know how to deal with their behavioral, cognitive and emotional response, and have supports from family and social services.

The American Academy of Pain Medicine [AAPM] believes that REMS for extended-release [ER] and long-acting [LA] opioids is a meaningful program that educate that prevent from misuse (Grabois, 2012). The Academy believes that both education and training are both keys to reducing the opioids addiction. Additionally, Grabois (2012), the president of AAPM stated that opioids must continue be the main treatment for chronic and severe pain. The Academy has found that education for both prescribers and patients is critical to helping people in pain and reducing the misuse of opioids. It is imperative that patients know how to safely take their medication and prevent diversion.

Discussion

As a social worker in training, the author believes that there need be a program that educate patients about their pain medications. The REMS program mainly focuses on the prescribers' education and not patients. The type of education in the REMS is the medicine guide, which is printed out when the prescription is filled at the pharmacy. It describes the benefits and risks of taking a particular medicine. The author wants to build a program that is more informative and interactive. A methadone clinic is the most effective and evidenced-based treatment. However, it is not easy to open a methadone clinic because of the controversy. People think that methadone is just a substitute for another drug.

References

- Byrne, M. H., Lander, L., & Ferris, M. (2009). The changing face of opioid addiction: Prescription pain pill dependence and treatment. *Health & Social Work, 34*(1), 53-56. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=36988009&site=ehost-live>
- Franklin, G., Sabel, J., Jones, C. M., Mai, J., Baumgartner, C., Banta-Green, C., . . . Tauben, D. J. (2015). A comprehensive approach to address the prescription opioid epidemic in Washington state: Milestones and lessons learned. *American Journal of Public Health, 105*(3), 463-469 7p. doi:10.2105/AJPH.2014.302367
- Gilson, A. M., Maurer, M. A., Lebaron, V. T., Ryan, K. M., & Cleary, J. F. (2013). Multivariate analysis of countries' government and health-care system influences on opioid availability for cancer pain relief and palliative care: More than a function of human development. *Palliative Medicine, 27*(2), 105-114. doi:10.1177/0269216312461973
- Grabois, M. (2012). Improving health outcomes through education. *Pain Medicine, 13*(9), 1107-1107. doi:10.1111/j.1526-4637.2012.01482.x
- GREEN, T. C., ERG, J. B., DAURIA, E. F., & RICH, J. D. (2014). Responding to opioid overdose in Rhode Island: Where the medical community has gone and where we need to go. *Rhode Island Medical Journal, 97*(10), 29-33. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=98744726&site=ehost-live>
- Hamilton, R. (2015, November 30). Personal communication.
- Maxwell, J. C. (2011). The prescription drug epidemic in the United States: A perfect storm. *Drug & Alcohol Review, 30*(3), 264-270. doi:10.1111/j.1465-3362.2011.00291.x
- Meyer, R., Patel, A. M., Rattana, S. K., Quock, T. P., & Mody, S. H. (2014). Prescription Opioid Abuse: A Literature Review of the Clinical and Economic Burden in the United States. *Population Health Management, 17*(6), 372-387. <http://doi.org/10.1089/pop.2013.0098>
- National Association of Social Workers. (2005). NASW standards for social work practice in health care settings. Retrieved from: <https://www.socialworkers.org/practice/standards/naswhealthcarestandards.pdf>
- Perry, R. (2015, November 24). Personal communication.
- Reddy, B. S. (2006). The epidemic of unrelieved chronic pain: The ethical, societal, and regulatory barriers facing opioid prescribing physicians. *Journal of Legal Medicine, 27*(4), 427-442 16p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=106165113&site=ehost-live>
- Reifler, L. M., Droz, D., Bailey, J. E., Schnoll, S. H., Fant, R., Dart, R. C., & Bucher Bartelson, B. (2012). Do prescription monitoring programs impact state trends in opioid abuse/misuse? *Pain Medicine, 13*(3), 434-442. doi:10.1111/j.1526-4637.2012.01327.x
- Ryan, G., Lyon, P., Kumar, K., Bell, J., Barnett, S., & Shaw, T. (2007). Online CME: An effective alternative to face-to-face delivery. *Medical Teacher, 29*(8), 251-257. doi:10.1080/01421590701551698
- Savage, S. (2010). The patient-centered opioid treatment agreement. *American Journal of Bioethics, 10*(11), 18-19 2p. doi:10.1080/15265161.2010.519426

- Schreiner, M. D. (2012). A deadly combination: The legal response to america's prescription drug epidemic. *Journal of Legal Medicine*, 33(4), 529-539 11p.
doi:10.1080/01947648.2012.739060
- Sigmon, S. C. (2006). Characterizing the emerging population of prescription opioid abusers. *American Journal on Addictions*, 15(3), 208-212.
doi:10.1080/10550490600625624
- Wright, T. (2015, November 23). Personal communication.

Appendix F

Logic Model

Needs Statement:		Patients in the community need to increase their knowledge of the risks/benefits of opioids use to make informed decisions regarding their medications in order to reduce addiction-related admissions.				
Theory & Key Assumptions	Resources	Activities (Process objectives)	Outputs * (Outcome/ Summative Objectives)	Outcomes (Short Term Goals)	Outcome Indicators* (Outcome/Summative Objectives)	Long Term Goal
-Person centred -Person-in-environment -Raising awareness of the risks/benefits of opioids use will improve informed decision making	-YouTube -Animation program (VideoScribe from Sparkol \$12/month) -Video equipment (microphone) -Script -Computer -Internet	-Research more of treatment facilities -Writing the script for 8-minute video -Buy the animation program -Learning how to upload video on YouTube -Learning how to create video using VideoScribe -Create an account on YouTube -Working with MultiCare Clinics' providers to introduce educational video before prescribing.	-Whiteboard video on YouTube -Patients that go to MultiCare Medical Clinics for acute pain will see this video.	1. Increased knowledge of health condition 2. Increased knowledge of treatment	1a. Understand health condition 1b. Knows personal risk factors 2a. Understands treatment 2b. Knows what to do for prevention	There will be less admissions to the EDs or treatment facilities due to opioids-addiction related.

	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
OUTCOMES/CRITERIA				

Appendix G

Student Name: _Nhan Cao_____

Program Name: __ Opioid Addiction_____

Data Collection Worksheet

Be sure to answer for each Outcome and Indicator

Outcome 1 Increased knowledge of health condition

Criteria to achieve outcome 1 (A&B)

Indicator A Understand health condition

Criteria to achieve indicator A (Patients will indicate that they know the difference between chronic verses acute pain. Indicated by survey questions 1 - 7). Every right question is given a point

Indicator B Knows personal risk factors

Criteria to achieve indicator B (Patients will indicate that they know the risks/benefits of opioid. Indicated by survey questions 8 - 10). Every right question is given a point

Outcome 2 Increased knowledge of treatment

Criteria to achieve outcome 2 (A&B)

Indicator A Understands treatment

Criteria to achieve indicator A (Patients will indicate that they know treatment options. Indicated by survey questions 1 - 5). Every right question is given a point

Indicator B Knows what to do for prevention

Criteria to achieve indicator B (Patients will indicate that they understand prevention from misuse. Indicated by survey questions 6 - 10). Every right question is given a point

Please attach copy of current tools. **Discuss only the tools used to measure the outcomes and indicators listed on the left**

↑ **Outcome 1:** Client Assessment Survey will test the patients' knowledge of opioid. The total score of the responses indicate the level of understanding of the video. The patients must pass with 10 points

↑ **Outcome 2:** Client Assessment Survey will test the patients' knowledge of opioid. The total score of the responses indicate the level of understanding of the video. The patients must pass with 10 points

Process used to collect data

Who - **The surveys are for patients that are prescribed opioid for acute pain at MultiCare Medical Centers**

When – **When a patient goes see his/her Primary Care Providers to get opioid prescription for the first time, and the doctor believe that pain medication is appropriate, patient should see the video first and take the survey before getting prescription. The survey should be taken every month if the patient continues to ask for opioid prescription**

Do you gather data on ALL Clients?

-YES, all patients that are prescribed opioid at MultiCare Medical Clinics (acute pain)

If NO, what SAMPLE STRATEGY do you use? (Random, Stratified, etc.)

What is your RATIONALE for using the identified strategy?

-Larger sample size can increase the accuracy of the data and raise confidence level

- Revisions readability test
- Field test (to test (something, such as a product by using it in the actual conditions it was designed for
- Institutional review board (IRB)
- Readability test
- Test questions using a panel of experts. Questions to ask are down below

Identify step(s) to ensure (List the most important - at least one step for each tool)

RELIABILITY

- Pilot test reliability by collecting from 20-30 subjects not included in the sample
- Test-retest over very short periods of time
- Use SPSS [Statistical Package for Social Science] improve reliability. Delete items that substantially improve reliability
- To assess reliability of knowledge questions, test-retest or split-half is appropriate
- Run alpha to find reliability coefficient

Establishing validity

The panel of experts must address these questions when testing the instrument. Readability test also enhances questionnaire validity (The Fog Index, Flesch Reading Ease, Flesch-Kinkaid Readability Formula, and Gunning-Fog Index). Approval from the IRB is the next step. Following the IRB approval is to conduct a field test using subjects that are not in the sample. Make changes, as appropriate, based on the field test and expert opinion. Now, the questionnaire is ready for a pilot test.

1. Is the questionnaire valid? In other words, is the questionnaire measuring what it intended to measure?
2. Does it represent the content?
3. Is it appropriate for the sample/population?
4. Is the questionnaire comprehensive enough to collect all the information needed to address the purpose and goals of the study?
5. Does the instrument look like a questionnaire?

Establishing Reliability

The pilot test will test if the questionnaire consistently measures whatever it measures. Test-retest or split-half is appropriate to assess reliability of knowledge questions. Data collected from pilot test is analyzed using SPSS. The reliability coefficient (alpha) can range from 0 to 1, with 0 representing an instrument with full of error and 1 representing total absence of error. A reliability coefficient (alpha) of .70 or higher is considered acceptable reliability.

Appendix H
Knowledge outcomes client assessment surveys

Need Statement: Patients in the community need to increase their knowledge of the risks/benefits of opioid use to make informed decisions regarding their medications in order to reduce addiction-related admissions.

Research Question: Do the patients increase their knowledge of the risks/benefits of opioid use after watching the video?

HEALTH/MENTAL HEALTH

Outcome: Increased knowledge of health condition (Opioid Addiction)

Indicator A: Understand health condition. (Question 1)

Indicator B: Knows personal risk factors. (Question 2)

1. Opioids have been used for thousands of years to treat moderate to severe, acute and chronic pain, and when non-opioids are not effective.

- Yes
- No
- Don't Know

2. Cancer pain is an example of acute pain.

- Yes
- No
- Don't Know

3. Acute pain usually last more than six months.

- Yes
- No
- Don't Know

4. With chronic pain, the pain itself becomes a disease?

- Yes
- No
- Don't Know

5. Chronic pain can last for weeks, months, and even years.

- Yes
- No
- Don't Know

7. Long-term use of opioids were safe to use and without dependence problems.

- Yes
- No
- Don't Know

Risk factors for prescription drug abuse include:

8. Drug diversion?

- Yes
- No
- Don't Know

9. Doctor shopping?

- Yes
- No
- Don't Know

10. Obtaining street drugs?

- Yes
- No
- Don't Know

Outcome: Increased knowledge of treatment (Opioid Addiction)

Indicator A: Understands treatment. (Question 1)

Indicator B: Knows what to do for prevention. (Question 2)

1. Abused prescription opioids include hydrocodone (Lorcet, Lortab, and Vicodin), oxycodone (OxyContin, Percocet, and Percodan), codeine (Tylenol 2s, 3s, and 4s), fentanyl (Duragesic) and morphine (MS Contin)

- Yes
- No
- Don't Know

2. Opioid-assisted maintenance programs are evidenced-based and most effective interventions in reducing heroin and prescription opioid use

- Yes
- No
- Don't Know

3. The best studied and most effective opioid agonist for maintenance treatment is methadone.

- Yes
- No
- Don't Know

4. Care plans assure that both the patient and clinician understand the goals of treatment, the structure of care, and conditions under which treatment may be continued or discontinued.

- Yes
- No
- Don't Know

5. Opioid is important in treating acute and chronic pain.

- Yes
- No
- Don't Know

6. Register yourself on the Prescription Drug Monitoring Program [PDMP] so the doctor can monitor your prescriptions

- Yes
- No
- Don't Know

7. Heroin is cheap on the street, but is more addictive than opioids.

- Yes
- No
- Don't Know

8. Following instructions from the prescribers is one way to prevent opioid abuse.

- Yes
- No
- Don't Know

9. Educating yourself on managing pain is one way to prevent opioids abuse.

- Yes
- No
- Don't Know

10. Never use another person's prescription

- Yes
- No
- Don't Know