Addiction in Cancer Patient Populations: Should it be Treated?

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Recently, there has been an increased focus on addiction and its treatment across many disciplines, most notably the treatment/prevention industry, behavioral health services, and medical professionals. Despite a heightened awareness of addiction among professionals, there are still groups of people who may struggle with addiction and who may have their needs go unaddressed.

Perhaps one of the most under-studied medical populations at risk of developing an addiction is the population of people who are diagnosed with cancer, both treatable cancer and terminal cancer. The following writing addresses the processes of addiction, the physical and psychological effects of a cancer diagnosis, the prevalence of substance misuse and addiction among cancer patients, the current literature in this area, implications for cancer and addiction treatment, and suggestions for further study in this area. This writing attempts to address the following questions:

- 1.) What is the prevalence of addiction/substance use disorder among cancer patients, including patients with treatable and terminal diagnoses?
- 2.) What is the relationship between addiction/substance use disorder (if any) and cancer? Does the presence of addiction exist before the diagnosis? Does the diagnosis result in a "chemical coping" mechanism for a patient diagnosed with cancer?
- 3.) Why should treatment providers (both behavioral and medical) care about addiction/substance use disorder in a population of cancer patients?
- 4.) What are the benefits, if any, of substance use treatment for cancer patients?
- 5.) What areas of further study are needed to better understand the relationship between cancer and addiction, if any?

Answering these important questions regarding the experience of addiction within cancer patient populations will provide insight into whether or not this is an area of concern for medical providers, requiring them to provide additional addiction treatment for these patients.

The stress of addiction

The literature in the area of addiction and cancer patients uses the terms addiction and substance use disorder interchangeably. For the purposes of this writing, the term addiction will be used. The experience of addiction in the general population is estimated to be at around 9% of Americans, which researchers identify as being one of the most common chronic diseases in our country (Compton & Chang, 2016). Throughout the semester, the various physical health consequences and social consequences of addiction have been discussed as having a significant cost to our society and to the individual experiencing addiction. The disease of addiction is characterized as being chronic, progressive, and fatal if left untreated (Compton & Chang, 2016). Effective addiction treatment requires individuals to confront their substance use directly and work on changing their environments in order to prevent relapsing into negative behaviors and to maintain their recovery process. The process of recovery from addiction can involve many challenges for the individual experiencing addiction, often leading to stress that can further exacerbate addiction. Many times, this stress can result in the addicted individual relapsing into addictive behaviors and, most often, actual substance use once again.

The stress of cancer

Putting addiction and its complications aside for the moment, it is imperative that providers are aware of the difficulties that cancer can bring to a patient as a separate entity from addiction.

It is a common experience for patients who are diagnosed with cancer, regardless of the type of cancer or whether or not the cancer is deemed treatable by oncology practitioners, that a cancer diagnosis can yield a "storm" of emotions in a patient. Most often, these emotions are reported as "anxiety, fear, anger, stress, and depression" (New Beginnings, 2017, p.2). These emotions are overwhelming under ordinary circumstances; yet, the cancer patient finds them to be amplified in many ways due to the severity of their diagnosis. Several factors can contribute to the overwhelming feelings such as: the number of providers who suddenly become involved with the case, the types of treatments being offered, required navigation through insurance policies regarding coverage, the endless Google searches on the diagnosis, etc. A patient's life can immediately become consumed by a cancer diagnosis. Hence, it is easily understood that the average person would be likely to struggle with identifying positive coping strategies and may turn to maladaptive ways to cope with the stress of their illness.

The occurrence of "chemical coping" in cancer patient populations

One method of coping that is often viewed as maladaptive is through the use of substances. Given the high level of stress that individuals with cancer experience, it seems likely that they may turn to the use of substances to numb both physical and emotional pain related to their diagnosis (Compton & Chang, 2016).

Current studies often focus on addiction within cancer patients arising from the misuse of prescribed medications [predominately opioids prescribed to manage pain] and the misuse of alcohol to cope with the emotional "weight" of a cancer diagnosis. There is much less information on other possible drugs of choice that patients could be using. Evidence also exists for the presence of alcohol use being increasingly likely for patients who are using opioids for pain management. Using the CAGE Substance Abuse Screening Tool, some studies have found that cancer patients who screened positive for alcoholism were also found to be more likely to be taking prescribed opiates than those patients who screened negative on the CAGE (Dev, Parsons, Palla, Palemer, DelFabbro, & Bruera, 2011).

Concern with alcohol use by cancer patients has also been investigated for palliative care patients. Patients with terminal cancer were assessed and a high prevalence rate among patients "...admitted to acute care hospitals [was] between 12% and 30%" (Bruera et al, 1995, p. 601). The authors concluded that rates of alcoholism may be much higher for cancer patients who are experiencing higher levels of symptoms and higher levels of emotional distress (Bruera et al, 1995).

Switching focus to cancer patients and opiate use, Barclay et al (2014) found that 39-45% of their patients studied were determined to be at "medium to high risk" for developing an addiction to opiates. Additionally, other authors have identified that the "...prevalence of opioid use disorder [among] patients with cancer [is] about 8%" (Compton & Chang, 2016, p.205).

The type of addiction most often reported by cancer patients is to pain medications. Some studies have focused on attempting to explain the causes of addiction in cancer patients. For example, and as previously mentioned, Chiders and Arnold (2012) identify that a patient's addiction could have existed prior to the onset of the cancer diagnosis. Their research demonstrates that there is a possibility that the patient's cancer could be a result of long-term substance use, which is a point that has been supported by our class material regarding the medical aspects of chemical dependency (Inaba & Cohen, 2014). However, despite the existence of strong support for this particular relationship, some researchers propose another cause of addiction that is more relevant to the study of the subject at hand—that of "chemical coping." "Chemical coping" is described as medication misuse in a maladaptive pattern as an attempt to deal with the emotional distress of an illness (Chiders & Arnold, 2012). One limitation of this definition is that it focuses on the misuse of medication, implying prescribed or non-prescribed medications, and it does not account for using other substances—either legal or illegal.

The problem of pain

A brief discussion on the problem of pain is warranted in this writing, especially for patients who are being treated in the context of palliative care. It is well documented, both in oncology and addiction research, that cancer can cause patients to experience a tremendous amount of pain. This pain is a result of tumors that grow "...until they displace vital organs, and sometimes the tissues grow so quickly that they cause bones, muscles, and skin to bend and stretch in unusual ways (DualDiagnosis.org, n.d.).

Clearly, physicians want to minimize the pain for their patients. Medically, the prescription treatments typically involve the use of opiates. As cancer progresses, pain is likely to increase, making the prescribing of opiates also likely to increase in amount, frequency of administration, and type of opiate being administered.

Given the propensity of physical tolerance to opiates increasing with these factors, it is logical to conclude that a physical dependence (at the very least) is likely to occur in these patients. However, it also appears that medical providers need to weigh the risks/benefits in this area for patients in order to manage their pain. Eventually, as cancer progresses, the use of opiates to manage pain seems inevitable and, in some cases, unavoidable.

The prevalence of addiction within cancer populations

Gaining information about prevalence of addiction within cancer patient populations is somewhat difficult. As previously mentioned, the majority of statistics tend to focus on the rates of alcohol abuse and opiate abuse in this population of patients. Despite the use of medical marijuana in some states and treatment centers, there is little, if any, information that has been studied regarding rates of addiction to this substance within cancer patient populations thus far. There is no clear statistic on the prevalence of addiction in cancer patient populations. A review of the research yields results with some studies reporting very low prevalence numbers (5%), others finding higher numbers (25%), with others finding still higher numbers (39%) (Barclay, Owens, & Blackhall, 2015). Despite these differences in prevalence among studies, the general consensus among authors of the studies is that the prevalence could be much larger and there is the potential that substance misuse/substance use disorders are under-diagnosed in cancer patients. Of course, the priority of cancer treatment itself often becomes the focus for medical providers, with any other secondary or tertiary conditions being set aside until the primary diagnosis is addressed. Therefore, it seems reasonable to conclude that physicians may be concerned with their patients' substance use and do not simply choose to ignore it; rather, they need to prioritize the conditions and the cancer is the primary treatment focus. Interestingly, some researchers have chosen to explore this area more in depth to discover how physicians prioritize the presence of addiction in cancer patient populations.

Addiction as a complicating factor to cancer treatment

One cause for concern among physicians in regard to letting addictions go untreated for the sake of focusing on the cancer itself is how addiction can add a complicating factor to cancer. For example, cancer patients are often prescribed many different types of medications, not just for pain management. Taking medications mixed with other substances can cause an imbalance, or other negative reaction, in the patient causing the medications to not work properly or, perhaps, even resulting in patient death (New Beginnings, n.d.).

Other authors raise concerns that the presence of addiction in cancer patients could potentially, "(1) increase patient suffering, (2) increase stress and frustration for family members/caregivers, (3) mask the symptoms important to the patients' care, (4) result in reluctance by providers to provide adequate pain medications, (5) lead to poor patient compliance with medical regimen, and (6) decreased quality of life (Chow et al. 2001, p. 495). The argument is made that simply ignoring any substance use, especially at the level of addiction, will not improve whatever quality or length of life patients have left. Therefore, addiction in this population should be treated.

Physician attitudes as a possible barrier to treatment

There are four central themes that have developed through studies focused on this area. One is that physicians tend to minimize the potential for substance misuse to occur, let alone progress into a diagnosed addiction. Physicians, especially those on palliative care teams, are concerned with making patients as comfortable as possible and do not feel the need to monitor the patients for any type of addictive symptoms. Their focus is on helping the patient "in the moment" because it is likely that the patient will be expiring in the near future. Traditionally, and particularly in the end stages of the diagnosed cancer, medical professionals will use pain medications to help their patients remain "comfortable" as part of the patient's palliative care plan. At this stage of the cancer, it could be hypothesized that it is unlikely that patients would be engaging in recreational drug use, or even misuse of pain medications, due to their physical inability to do so. This particular perception of patients may lead to an increase of addiction that goes unaddressed by their medical providers. Despite the minimization of the potential for addiction in palliative care patients by medical providers, Childers and Arnold argue that "...even in such patients, unchecked addiction can lead to impaired quality of life, decreased pain control, and caregiver stress" (Childers & Arnold, 2016, p. 258). Given the drive to increase palliative care patients' quality of life as much as possible, their argument seems to be relevant. It does not seem ethical to leave these patients with an addiction that could make their final days more stressful than necessary. It also does not seem ethical to have family members witness the patients' simultaneous struggle with addiction and the diagnosed cancer.

A second theme that develops is that oncology specialists are not expected to be experts on addiction. As a result, they may be unable to accurately identify concerning behaviors and may not feel confident in their abilities to diagnose an addiction.

The general consensus among researchers is that cancer care teams would benefit from including multidisciplinary members, with at least one addiction specialist (Passik & Portenoy, 1998; Passick, Portenoy & Ricketts, 1998). If no one is available at the cancer care treatment center, then best practice would be to refer the patient to a clinic affiliate with this specialty (Compton & Chang, 2016).

A third theme in the literature is that of physicians' concerns with undermining their therapeutic alliance with patients. Chow et al (2000) identified that the presence of an addiction is more likely to make physicians doubtful of their patients' credibility in reporting symptoms *and* their overall compliance with cancer treatment. Interestingly, Chow et al (2000) also found that physicians reported being *reluctant* to confront patients on their substance use, potential patterns of addictions, and on their concerns of patients' credibility and fidelity to treatment protocols. This implies problems for treatment, as the addiction would be enabled, further complicating cancer treatment interventions.

A fourth theme arose of physicians viewing addicted cancer patients as being "time-consuming, labor-intensive, and difficult," and that they often feel that allowing these patients to continue to use substances or misuse medications is "no big deal" (Passik & Theobald, 2000, p.229). Many physicians felt that treating addiction, and even screening for the possibility of addiction or substance misuse, was not "worth the effort" and these same physicians viewed addiction among general population the same way (Passik & Theobald, 2000, p.229). Obviously, this is a concerning view for both the population of cancer patients and our society in general, given the opiate epidemic we are dealing with in present times.

Conversely, another study found that some medical providers are well aware of the addiction issues in the cancer patients that they treated. However, they were also reluctant to confront their patients on their substance use or misuse of medications. Some medical providers reported feeling "uncomfortable calling a patient out" due to the severity of their cancer and the discomfort that they may be feeling (Childers & Arnold, 2012). These particular medical providers were also reported to have some medical training in the area of addiction medicine [more than most physicians] and demonstrated concern with the ways addiction can interfere with cancer treatment; yet it appears that their empathy for the patients may have overruled any concerns about patients' addiction. In fact, one may conclude that these specific physicians did not want to take away the "chemical coping" mechanisms that their patients were prone to implementing.

Is addiction treatment beneficial for this populations?

There is limited research on the implementation and benefits of addiction treatment in conjunction with cancer treatment. Despite the sparse number of studies in this area, research has consistently found that if a cancer patient is able to stop using substances (particularly alcohol and tobacco) as part of their cancer treatment plan, "...a significant decrease in tumor [recurrence] at 2 and 5 years is noted" (Perney et al, 2014).

Perney et al (2014) implemented treatment in a population of patients with upper-aero digestive tract (UADT) cancer, who reported alcohol and tobacco use while in cancer treatment. Patients were assessed at baseline and then given motivational interviewing interventions and medication assisted treatment interventions (Chantix, acamprostate, etc.) where appropriate, provided by addiction professionals. The authors found that treatment did help reduce, and in some cases completely stop, the patients' substance use. The authors concluded that offering addiction treatment in conjunction with cancer treatment for patients with UADT cancers can help them achieve abstinence, allowing them to then focus on cancer treatment. Additionally, at six month and twelve month follow up sessions, patients reported sustained abstinence (Perney et al, 2014). The authors are cautiously optimistic with these findings and recognize the need to further explore the impact of substance use on cancer in more long-term studies and with different cancer diagnoses. However, there is evidence in this study to provide the rationale for further research regarding the benefits of addiction treatment as part of a cancer care plan where appropriate.

Limitations of current studies/suggestions for further study

The studies reviewed in this writing involved populations of cancer patients with any type of diagnosed cancer. It is unclear whether or not there may be differences in prevalence of addiction or benefits of treatment of addiction, depending on the types of cancer a patient may be diagnosed with. This is an area to be considered upon further study of the topic.

Current studies have focused on the use of alcohol, opiates, and tobacco (in some instances) and did not focus on any other potentially addictive behaviors used as coping strategies.

It would be interesting to learn more about other substances or behaviors that patients may be using outside of medical intervention, such as marijuana or cocaine. Of particular interest would be identifying other substances or behaviors that patients use to "chemically cope" with their cancer diagnoses. To expand on this understanding further, it would also be of interest to identify if patients were exhibiting other addictive behaviors, such as compulsive gambling, eating, or shopping, etc. in order to cope with their cancer diagnoses. Given the many different diagnoses of cancer, there is room for much continued research in the future within this population.

In many studies, the authors identified that patients had not previously been screened for diagnoses involving addiction before entering cancer treatment. Therefore, researchers cannot be sure which occurrence happened first: the addiction or the cancer diagnosis. Having a better understanding of this connection will help researchers and providers to better identify the start of an addiction within the parallel cancer treatment process.

Implications for behavioral and medical care with cancer patients

Reviewing the research in this area, it becomes clear that screening medical patients for potential concerns with addiction would be beneficial to the medical field. Many patients reported that they had never been asked anything about a substance use history by their treatment teams (Choflet et al, 2000). This would allow any patients who later develop any medical concerns to again be screened for substance use and addiction within the context of that concern. This may allow providers to get a better sense of when to implement addiction interventions.

Additionally, a review of the research shows that there is no consensus among medical providers regarding the best practices for treatment of cancer patients with addictions. This may be due, in part, to the physicians' reported attitudes toward addiction and their focus on managing the cancer as the primary concern. Further discussion among providers of addiction treatment and medical treatment is necessary to address best practices for this population of patients.

Conclusions

The examination of addiction within populations of cancer patients has demonstrated the answers to some important questions, while simultaneously demonstrating the need for further study among this population. The prevalence of addiction/substance use disorder among cancer patients is unclear and many studies offer a variety of numbers. Further study would be useful in this area to clarify the actual prevalence within this population.

Research demonstrates that there does seem to be an increased likelihood of misuse of substances within cancer patient populations and focuses on opiates, alcohol, and tobacco. It is still difficult to concretely determine in the studies reviewed if the addiction was present for the patients studied before the cancer or if the addiction happens in response to an attempt to "chemically cope" with the cancer diagnosis. Again, further research and improved screening methods would be helpful in future study of this area.

Where addiction is present for these particular patients, the research demonstrates that adding a component of addiction treatment within a cancer care plan has been shown to be beneficial for patients. The results of interventions used were still present in follow-up interviews with the involved patients even one year later. This can lead one to conclude that it is worth further exploring and providing appropriate treatment for addiction where necessary within this patient population.

In conclusion, the review of physicians' views on addiction within cancer patients, along with the detriments noted to cancer patients' success with cancer treatment due to addiction are concerning. Despite a cancer patient's possible terminal cancer diagnosis, treatment providers—including medical providers—have an obligation to treat all aspects of the patient to help them live the fullest life that they are able to, regardless of the brevity of the life that may lay before the patient. Additionally, patients who are *not* diagnosed with terminal cancer also deserve compassionate care and providers who help them live life fully and return to their baseline functioning pre-cancer diagnosis wherever possible.

As addiction treatment professionals, it is important to continue to advocate for the needs of this population and work in collaboration with medical providers in order to best meet the needs of the patients being served. It is only through increased collaboration and understanding between these two fields that best practices will continue to emerge. Further research on this topic is necessary in order to identify best practices more clearly, thus allowing improved treatment interventions to be studied. Addiction within cancer patient populations, as with any other co-occurring medical complications (diabetes, HIV, multiple sclerosis, etc.) within cancer patients, warrants concern and appropriate treatment by skilled professionals.

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