

# **Dealing with hypersexuality in geriatric care facilities**

A Literature Review

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<p><b>Abstract:</b></p> <p>The subject area of this literature review focuses on hypersexuality exhibited by patients in geriatric care facilities and how nurses can be prepared in the management of its occurrence. The aim of this study is to explore inappropriate sexual behavior in hope to promote awareness and give light to possible coping strategies that nurses and other healthcare professionals can apply in the management of care. The research questions are 1) What is hypersexuality? 1a) What are the triggering factors? 1b) What can be considered hypersexual behavior? 1c) How common is hypersexuality in nursing care facilities? 2) How can nurses be prepared in the care management of hypersexuality disorder? All questions have been answered despite the scarcity of scientific resources at the time the author is conducting his research. Scientific articles are obtained through Arcada's academic databases - Academic Search Elite, Cinahl, Pubmed and Sage journals. The main search terms used are: Hypersexuality AND dementia; "Inappropriate sexual behavior" AND elderly; Diagnosis AND "Inappropriate sexual behavior" AND dementia. The findings on this study suggest that including sexuality education into the regular nursing curriculum rather than as an elective study will introduce all nurses early towards hypersexuality. It will help improve their ability in managing its care interventions as well as in conducting proper patient education. The results also show that addressing inappropriate sexual behavior in a biopsychosocial approach gives better opportunities in devising a holistic care plan for nurses.</p>	
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## **FOREWORD**

I would like to extend my gratitude to my mentors who have shared their knowledge and experiences during my nursing studies. It has given me the motivation to follow their footsteps in being a good nursing professional in the future. Thank you to Pamela Gray, Denise Villikka and to the rest of Arcada faculty for providing us the opportunity to challenge ourselves and guide us in our chosen field of study.

# 1 INTRODUCTION

Hypersexuality is often referred to Inappropriate Sexual Behavior (ISB), sexual disinhibition or compulsive sexual behavior. It is an occurrence that pertains to heightened libido, public masturbation, inappropriate touching or exhibiting genitalia. It also refers to verbal expression with sexual context either to one's self or to another person. There had been several terms used to synonymize hypersexuality such as nymphomania, satyriasis, erotomania, hyperphilia, compulsive sexual behavior or sexual impulsivity. Sexologists have been using the term hypersexuality since the late 1800s, when Krafft-Ebing described several cases of extreme sexual behaviors in his seminal 1886 book, *Psychopathia Sexualis* (Kafka, 2010). At present, hypersexual disorder is the terminology favored by the American Psychiatric Association (Samenow, 2010).

A number of theoretical models have been used to explain, diagnose and treat hypersexuality. Although hypersexuality can be caused by some medications or medical conditions, like in dementia cases, the causes are still mostly unknown. Even the diagnoses of hypersexuality is still under discussion for the consideration for its inclusion in International Classification of Diseases (ICD) 11 which is scheduled to be published in 2018 (Kraus et al., 2016).

This literature review explores the occurrence of hypersexuality in people with dementia, particularly in geriatric care facilities, as this is something that often brings confusion and in some cases appalls healthcare workers and even the patients' family members. Its purpose is to demonstrate the familiarity of the occurrence by providing background data and establish the importance of its awareness. The review will hopefully help healthcare workers with the preparation of one's perception towards the elderly who displays hypersexuality or any form of inappropriate sexual behavior, as well as in dealing with the possible psychosocial effects it may incur both to the patient and to his environment. Proper clinical awareness of hypersexuality will result to proper patient teaching and also, the scarcity of scientific researches on the subject will encourage academics to continuously explore the phenomenon.

## 2 BACKGROUND

It is but proper to draw the distinction between sexuality and hypersexuality in this literature review in order to gain a better understanding of the subject as well as the constituting factors that leads to the challenges due to its occurrence. To recognize a certain sexual behavior as a disorder is a challenge in itself. People of different backgrounds, including nurses may have different perceptions on sexuality depending on their cultural foundations and experiences in life (Denman, 2004). According to Zilbergeld, 'Sexuality is with us from the moment of birth to the moment of death' (2004, p.15). It is a natural human behaviour and a basic need that continues throughout life (Sengupta & Stubbs, 2008). When Denman wrote his book on sexuality based on a biopsychosocial approach in 2004, he said that human sexuality should be addressed free of prejudice as much as possible, that is people being comfortable discussing about sexual matters as well as hearing about it (2004, p. 308) because sexuality is of basic human nature. He explained that our biological nature was developed as a result of evolutionary processes and expresses itself in physiology and anatomy (Denman, 2004). Describing human sexuality could be branched out into categories such as sex in terms of birth-assigned gender and from these, there will be subcategories such as sexual role and preferences. From anatomy, we could discuss sexuality in terms of physiology. In this category, it encompasses the human body's sexual reaction such as arousal and excitement, desires, sexual response cycle and orgasms (Denman, 2004).

Sexuality is an intense personal experience. Cognitive therapists and theorists have approached sexuality from the basis of learning theory and a theory of motivation and experience driven by cognitive appraisal (Denman 2014). Sexuality does not have a definitive theory to derive it to and each is a case-to-case basis depending on the approach a psychoanalyst would base the phenomenon to. Denman further wrote (2014, p.64);

One particular psychological approach – psychoanalysis – has had by far the greatest and most detailed amount to say on the topic of sex. Indeed, in some sense the entire subject matter of psychoanalysis is sex and sexuality, since Freud thought that libido (sexual drive) was the key dynamic force in the psyche. For Freud, and to a greater or lesser extent for each of his followers, sexuality is the conditioning force shaping other, not apparently sexual, phenomena.

The Freudian theory talks about the psychosexual stages of the human experience starting from birth. According to Freud as mentioned in Denman's book (2004), differences in childhood sexual experience have different effects on adult formation of character. Human sexual experience is shot through with the influence of language, culture and various beliefs. For this reason, neither biology nor psychology can provide the whole of any explanation of the social affair, which is human sexuality (Denman 2004, p. 37). Ironically, it is the fact of social diversity across time, amongst and within cultures that undercuts any easy claims of sexual universality and any easy standard of sexual normality. Sexuality based on social approach includes the society, the environment and the effects of its ever-growing diversity in terms of economy, religion, culture and politics in which altogether mold one's sexuality (Denman, 2004).

## **2.1 Hypersexuality**

Hypersexuality has a multitude of definitions that refers to inappropriate sexual behaviour (ISB) such as 'sexual advances', 'propositioning' and 'inappropriate commentary'. The phenomenon has been defined as 'a verbal or physical act of an explicit or perceived, sexual nature which is unacceptable within the social context in which it is carried out' (Johnson et al., 2006). Inappropriate sexual behavior is public masturbation, and inappropriate exposure of genitalia, excessive kissing and inappropriate touching. These behaviors can be conventional or "paraphilic" (Kafka & Prentky, 1992). Being paraphilic involves recurrent, intense, sexually arousing fantasies, urges or behaviors involving non-human objects, the suffering or humiliation of oneself or one's partner, or children or other non-consenting persons (Krueger & Kaplan, 2001). Inappropriate sexual behavior can also manifest as excessive preoccupation with sex, sexual hallucinations and delusions of the partner's infidelity (Kuhn 1998, Higgins et al., 2005).

Various neurobiological, psychological and environmental explanations have been available in hope to classify hypersexuality as a clinical diagnosis; but the manner of causation is still unknown (Johnson et al., 2006). According to Krueger (2016), Kraus et al. wrote in 2016 that the diagnosis of compulsive sexual behavior was being considered for inclusion in the ICD 11 and observed that the diagnosis of hypersexual disorder was rejected by the American Psychiatric Association (APA) for inclusion in the 5<sup>th</sup> Diag-



nostic and Statistical Manual of mental disorders (DSM-5). Although ICD-11 is not scheduled to be published until 2018, the diagnosis of Compulsive Sexual Behavior Disorder is being considered (Stein et al., 2015) and the suggested definition has been posted on the ICD-11 Beta Draft website from the World Health Organization (WHO, 2015), the text of which is:

‘Compulsive sexual behaviour disorder is characterized by persistent and repetitive sexual impulses or urges that are experienced as irresistible or uncontrollable, leading to repetitive sexual behaviours, along with additional indicators such as sexual activities becoming a central focus of the person's life to the point of neglecting health and personal care or other activities, unsuccessful efforts to control or reduce sexual behaviours, or continuing to engage in repetitive sexual behaviour despite adverse consequences (e.g., relationship disruption, occupational consequences, negative impact on health). The individual experiences increased tension or affective arousal immediately before the sexual activity, and relief or dissipation of tension afterwards. The pattern of sexual impulses and behaviour causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.’

The International Classification of Diseases (ICD) is by far the most widely used classification of mental disorders world-wide, and its diagnostic codes are mandated for use in the United States and other countries by international treaty (Reed et al., 2011 pp.118-31) as opposed to DSM-5 diagnoses, which have no such mandate.

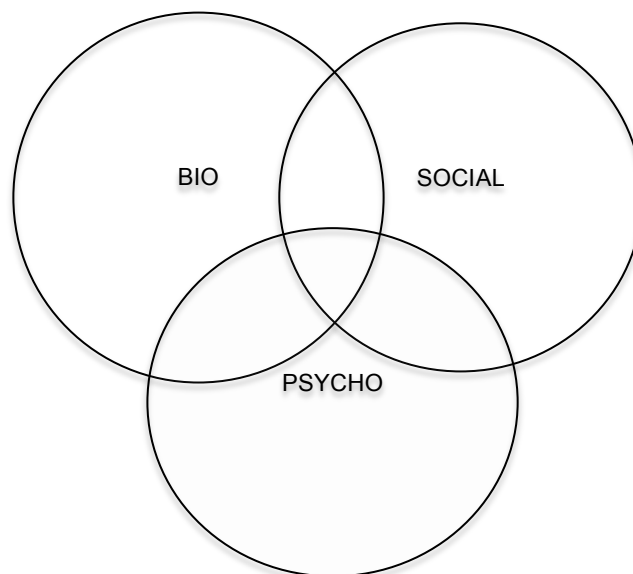
## **2.2 Hypersexuality in elderly and dementia**

Studies have shown that 50-80 % of persons older than 60 years continue to have regular sexual activity --- more than once per month (Ibrahim and Reynaert, 2014). Moreover, 53% of people between 65 and 74 years old and 26% of people between 75 and 84 years old had a regular sexual activity (Lindau, 2007). Therefore, a person's sexual desire is not limited to age. It is when and how the elderly get to manage this behavior. Sexuality is always a difficult and challenging issue for nurses to address with older patients. This is particularly the case in relation to responding to incidents of hypersexuality or inappropriate sexual expression as a result of dementia (Higgins et al., 2004).

In a review conducted by Stubbs (2011), he wrote that displays of hypersexuality are most common in people with progressive cognitive impairment such as dementia. It may also occur at a young age (early-onset dementia, younger than 65 years old) and this is most likely hereditary caused by rare mutation in genes. The most common types of early-onset dementia are vascular, frontotemporal, dementia with Lewy bodies and alcohol-related dementia. People with Down's syndrome and other learning disabilities can also develop dementia at an early age. Alzheimer's disease is the most common type of dementia in people with Down's syndrome (Alzheimer's Society, 2017). A study performed by Mendez & Shapira (2013) states that patients with behavioral variant frontotemporal dementia (bvFTD) had general disinhibition, poor impulse control, and actively sought sexual stimulation. Therefore, dementia can be considered as one of the constituting factor that triggers hypersexuality.

### 3 THEORETICAL FRAMEWORK

Sexologists have not yet reached a consensus over how best to describe when hypersexuality is the primary problem or if it is even appropriate to think that its occurrence is a separate pathology (Stein, 2008). To better understand the phenomenon of hypersexuality and learn about its management, it is good to identify the correlating factors to its occurrence. In this way we can address it in different perspectives and develop different approaches that would provide nurses and healthcare workers the resources to a better patient care. In search of theoretical framework and scientific articles, there can be found different labels and terminologies in context to hypersexuality; but often dependent on which theory authors based it to. Models such as Ex-PLISSIT, Addiction Model, Compulsivity Model and Impulsivity Model exist. However, in the utmost consideration of the aim and objective of this literature review, the author uses the theoretical framework of Charles Samenow's Biopsychosocial Model of Hypersexuality Disorder/ Sexual Addiction as seen in figure 1 to look at hypersexuality in different aspects so to build a good foundation of understanding and awareness of this phenomenon.



*Figure 1 The Biopsychosocial Model*

The model was conceptualized by George Libman Engel (1977) and it recognizes that illness and ill-health are influenced by a person's biological, psychological and social attributes and that health is best understood as an integrated combination of all these components (Engel, 1977 & 1978; Sperry, 2006). According to Samenow (2010), the biological system stresses the importance of anatomical, structural, genetic and molecular underpinnings of diseases and their effects on individual's biologic function. The psychological system emphasizes how development, motivation and personality contribute both to disease processes and how individuals live and cope with those illnesses. The social model examines how cultural, familial, environmental and spiritual factors play a role in the development and progression of illness (Campbell & Rohrbaugh, 2006).

### **3.1 Biological Determinants**

Biological factors that contribute to hypersexual disorder include molecular, physical/organic conditions and substances. Molecular factors include neurotransmitter systems, neuronal pathways, hormones and other substrates that underlie a particular illness. Physical conditions include medical illness, neurological disorders, and other disease and non-disease states such as pregnancy. Substances include medications, as well as substances of abuse including prescription, over-the-counter and illicit drugs (Campbell & Rohrbaugh, 2006).

The ABC model of impulse control has been hypothesized as a possible model for hypersexual behaviors (Stein, 2008), but has not been validated in a clinical sample. In this model, the **A**mygdala leads to affective dysregulation, **B**ehavioral reward is controlled by the nucleus accumbens and ventral striatal circuits, and **C**ognitive control is impaired in the prefrontal cortex. The comparison to hypersexual disorder is the observed phenomenon of a high rate of affective disorders triggered by stress, preoccupation and reward from engaging in sexual behavior, and continued behavior despite negative consequences. There are several studies that offer support to this model. Functional MRI scans have demonstrated that men show greater activation in the amygdala activation

when shown stimulating materials than women do (Hamman, Herman, & Nolan, 2004). Enhanced dopaminergic neurotransmission (concentrated in the nucleus accumbens) has been associated with sexual excitation (Kafka, 2010).

There is also evidence of prefrontal cortical damage in sexual addicts with a history of sexual trauma according to Ullman, as written by Samenow (2010). The “monamine hypothesis” of paraphilias is also applicable to hypersexual disorder (Kafka, 2010). This model, which has been validated with laboratory animal studies, looks at how the monamine transmitters serotonin, norepinephrine, and dopamine interact with sex hormones such as testosterone to modulate sexual appetite and copulatory behavior in mammals. Increases in dopamine and decreases in serotonin lead to increased sexual behavior and decreased inhibition in primates (Kafka, 2010). In humans, the high rate of co-morbid mood disorders such as unipolar and bipolar disorders, anxiety, impulse control disorders and Attention Deficit Hyperactivity Disorder (ADHD). This model is further substantiated by the demonstrated efficacy of Serotonin Selective Reuptake Inhibitors (SSRI's) in decreasing libido (Kafka, 1991).

Hypersexual behavior has been seen in a variety of individuals who have suffered from traumatic brain injury (TBI) (Rao, Handal, & Vaishnavi, 2007). Studies of these individuals' brains have offered clues to localization of regions of the brain that may be responsible for such behaviors. For example, hypersexual behavior has been seen in individuals with thalamic strokes (Spinella, 2004). There are a variety of neurodevelopmental disorders that can lead to increased sexual behaviors such as Bipolar Disorder (APA, 2000), Alzheimer's disease (Dhikav, Anand, & Aggarwal, 2007), Kluver-Bucy syndrome (Stroke), and Kleine-Levin syndrome (Arnulf et al., 2005). To date, the pathophysiological understanding of these disorders has not led to better understanding of the anatomical, physiological or neurochemical basis of hypersexual disorder. It is well known clinically that substances that increase dopaminergic activity (e.g., anti-parkinsonian agents) in the brain often are associated with increases in sexual behavior (Klos et al., 2005). Further evidence for a biologic underpinning is the response that individuals suffering from this disorder have to take biologic treatments. As mentioned above, serotonin reuptake inhibitors often lower sexual libido (Kafka, 1991). Naltrexone, an opiate antagonist used in alcohol dependence and other addictive disorders, has

had some clinical application in reducing compulsive sexual behaviors (Grant & Kim, 2001). It should be noted that none of these treatments are specific to individuals with hypersexual disorder.

### **3.2 Psychological Determinants**

Hypersexuality as a mental condition has a complex classification, with which it may fall under psychodynamic, cognitive or behavioral (Samenow, 2010). Several theories can be found which tackle hypersexuality in different psychological disciplines. One that has the most empirical evidence is the Attachment Theory. It has been postulated that problems with attachment is a predisposing factor for problematic sexual behavior. Based on Ainsworth's (1978) works, it has been hypothesized that avoidant attachment patterns may lead to sexual encounters without emotion or affection (e.g., prostitutes and pornography). Disorganized attachment may lead to paraphilic behaviors (a desire for intimacy, but intense fear of it), whereas preoccupied attachment may lead to an emotionally needy individual who craves validation from multiple partners. There is a growing empirical evidence to support this theory in hypersexual disorder. One study did find that subjects who reported weak parental attachment were more involved in unrestricted sexuality and more drug usage than subject who reported stronger parental attachment (Walsh, 1995).

The theory on traumatic experience can also be one of the factors that may trigger hypersexuality in people. Most individuals who were traumatized in childhood grow up to be healthy, well-functioning adults (Rind & Tromovitch, 1997). However, it is well known that looking at a group of individuals suffering from hypersexual behaviors, a large percentage of those individuals report a history of psychological, physical, emotional and specifically sexual trauma (Schwartz, Mark, & Galperin, 1995). Hence, the role that trauma plays in hypersexual disorder cannot be ignored. To date however, the relationship between trauma history and hypersexual behavior is predominantly observational, descriptive and theoretical. Concepts such as dissociation, depersonalization, "trauma bonding," love-map and re-enactment, while well described in the psychological literature, have not been well validated in large samples of individuals with hypersexual disorders.

### **3.3 Social Determinants**

The social formulation identifies social, cultural and spiritual factors that contribute to the development of an illness. Social factors include family and upbringing, education, employment, access to health services and the legal system. Spiritual and cultural factors expand upon these domains looking at not only religion, but also how these factors explain an individual's identity, their environment, their relationship to others, and their relationship to healthcare providers (Campbell & Rohrbaugh, 2006). There are different hypotheses that talk about the social determinants of hypersexuality such as absent parenting, early exposure to pornography through media and the internet (Samenow, 2010), strict sexual suppression due to religious affiliations or even poverty and boredom; but these claims lack the empirical studies to support it.

Levine and Troiden (1988) in comparing different societies, stated that individuals who engaged in frequent sexual behavior were often labeled and pathologized because their behaviors did not follow the norms of their society. A sexual behavior that is thought to be excessive by one individual or group may not be seen as excessive by another. For example, nymphomania was a diagnosis for excessive sexual desire in women in the 19th century and was considered a disease. Today, although a woman's desire for sex is considered to be healthy, there is no consensus on exactly what this means. Kaplan and Krueger wrote in *The Journal of Sex Research* (2010) that in discussing hypersexuality, these factors need to be considered. In any discussion of whether a sexual behavior is problematic or not, it is critical to attempt to define what constitutes excessive sexual behavior and whether it is a problem for self or others. Identifying the social determinants of sexuality/ hypersexuality is dependent on many factors including individual and relationship variables, societal values, cultural norms, ethnic and religious beliefs. The kind of society a person has developed his own individuality from, more so his sexuality can be considered a triggering factor of hypersexuality disorder. The development of one's behavior can be dependent to his upbringing based on cultural values and social norms.

### 3.4 Summary

The biopsychosocial model considers the biological, psychological and social aspects together with their interactions to each other in understanding patients' health and the kind of nursing interventions they require. The model provides holistic caring considerations toward hypersexuality in which up to the date this paper is written, is still lacking scientific foundation in the field of nursing and healthcare delivery. The biopsychosocial model tackles the varying causes and effects of the phenomenon both to nurses and patients. Applying the model to hypersexual disorder offers several advantages. First, the model establishes a framework that allows for a comprehensive understanding of the individual as opposed to a focus on a particular theory or school of thought. Second, the use of the model emphasizes that problematic sexual behaviors deserve the same consideration and treatment as any other disease process. Third, the biopsychosocial model improves patient care by challenging providers to think about comprehensive treatment or care plans that address multiple domains of illness (Samenow, 2010).

In creating nursing care plans, patient safety is highly included in the implementation of care delivery. Mitchell (2008) wrote that patient safety is the cornerstone of high-quality healthcare, that nurses play a critical role in the surveillance and coordination of care to prevent mortality and morbidity. The biopsychosocial model approach promotes patient safety and high-quality care in a way that it creates pathways to understanding hypersexuality in different aspects. Identifying the different determinants of the disorder gives a clearer picture of a patient's sexuality background and thus, will provide the opportunity to create tailored-fit nursing interventions. This knowledge gives opportunities to nurses and other healthcare givers to provide appropriate and rather suitable care measures. Throughout every chapter of this paper, hypersexuality will be defined, described and discussed as per existing empirical studies. It will bring the realization that this certain type of disorder demands suitable knowledge on its various determinants, causes and effects, frequency or prevalence as well as the different management approaches it requires depending on the type of hypersexuality a patient portrays. Therefore, indulging into the study of this phenomenon through the biopsychosocial model will provide a rather non-biased and holistic approach towards the management of the disorder.



## **4 AIM AND RESEARCH QUESTIONS**

Hypersexuality or as defined by literature — Inappropriate Sexual Behavior (ISB), sexual disinhibition or compulsive sexual behavior, is a phenomenon that is seen and some may even find it appalling; but not often discussed due to the sensitivity of the issue. Hence, the aim of this literature review is to explore the hypersexuality in people with dementia and gain understanding of this phenomenon in a biopsychosocial perspective in hope to promote awareness and give light to possible coping strategies that healthcare workers can apply to deal with its occurrence.

The above aim will be accomplished by fulfilling the following questions:

1. What is hypersexuality?
  - a. What are the triggering factors?
  - b. What can be considered hypersexual behavior?
  - c. How common is hypersexuality in nursing care facilities?
  
2. How can nurses be prepared in the care management of hypersexuality disorder?

## 5 METHODOLOGY

This literature review is designed as a qualitative research using inductive analysis. This approach uses research questions to narrow down the scope of the study. Generally, the main focus of inductive analysis is either exploring new phenomena or to delve into existing ones in a new perspective. Beginning with a topic, a researcher tends to develop empirical generalizations and identify preliminary relationships as he progresses through his research (Dudovskiy, 2016). During the process, it is very important to secure a record of all sources used in the accomplishment of what is being written. Since literature reviews provide a description, summary and evaluation of each source, which may include scholarly journal articles, books, government reports or websites (Concordia University, 2016), it is important to use only professional or academic literature as mentioned by Jolley (2013) in his *Nursing & Health Research Skills Survival Guide*. Only use those which are written using an accepted standard of language that is respectful of both the subject matter and other academics, non-emotional language and objective, focused on the subject, questions and deals with conflicting arguments, ideas or evidences and made subject to peer review. He further enumerated the online databases such as Cinahl, Cochrane Library, Academic Search Complete, Medline, National Institute for Health and Clinical Excellence, and Evidence in Health and Social Care. It is wiser to utilize our resources effectively by keeping notes of searches made and making sure articles are peer-reviewed. Arcada University of Applied Sciences provides databases for use such as Academic Search Elite, Cinahl, Cochrane Library, PubMed and Sage. In this paper, empirical studies have been collated in which available data has been analyzed pertaining to specific phenomenon and focus groups. Interviews and case studies are already available from existing scientific sources as per database search.

## 5.1 Data collection

Data acquisition for this literature review is performed through Arcada’s academic databases. Scientific articles are extracted from Academic Search Elite, Cinahl, Pubmed and Sage journals. The main search terms used are:

- Hypersexuality AND dementia
- “Inappropriate sexual behavior” AND elderly
- Diagnosis AND “Inappropriate sexual behavior” AND dementia

*Table 1 Summary of Database Search*

Database	Keywords	Hits	Picks
Academic Search Elite	Hypersexuality AND dementia	25	1
	“Inappropriate sexual behavior” AND elderly	8	1
Cinahl	Hypersexuality AND dementia	9	1
	“Inappropriate sexual behavior” AND elderly	1	0
Cochrane Library	Hypersexuality AND dementia	47	0
	“Inappropriate sexual behavior” AND elderly	11	0
Pubmed	Hypersexuality AND dementia	13	2
	“Inappropriate sexual behavior” AND elderly	3	2
	Diagnosis AND “Inappropriate sexual behavior” AND dementia	6	1
Sage	Hypersexuality AND dementia	64	2
	“Inappropriate sexual behavior” AND elderly	45	0

With a total of 232 articles extracted from academic databases, inclusion and exclusion strategy is applied to narrow down articles according to full text access, eliminating non-english articles and those that were written or published before year 2000. These articles were further narrowed down as per relevance to the subject matter eliminating studies on addiction, young people and those that do not include nursing interventions or management of hypersexuality. Figure 2 below shows the selection process and with Table 2 showing the 10 articles used to answer the questions in this literature review.

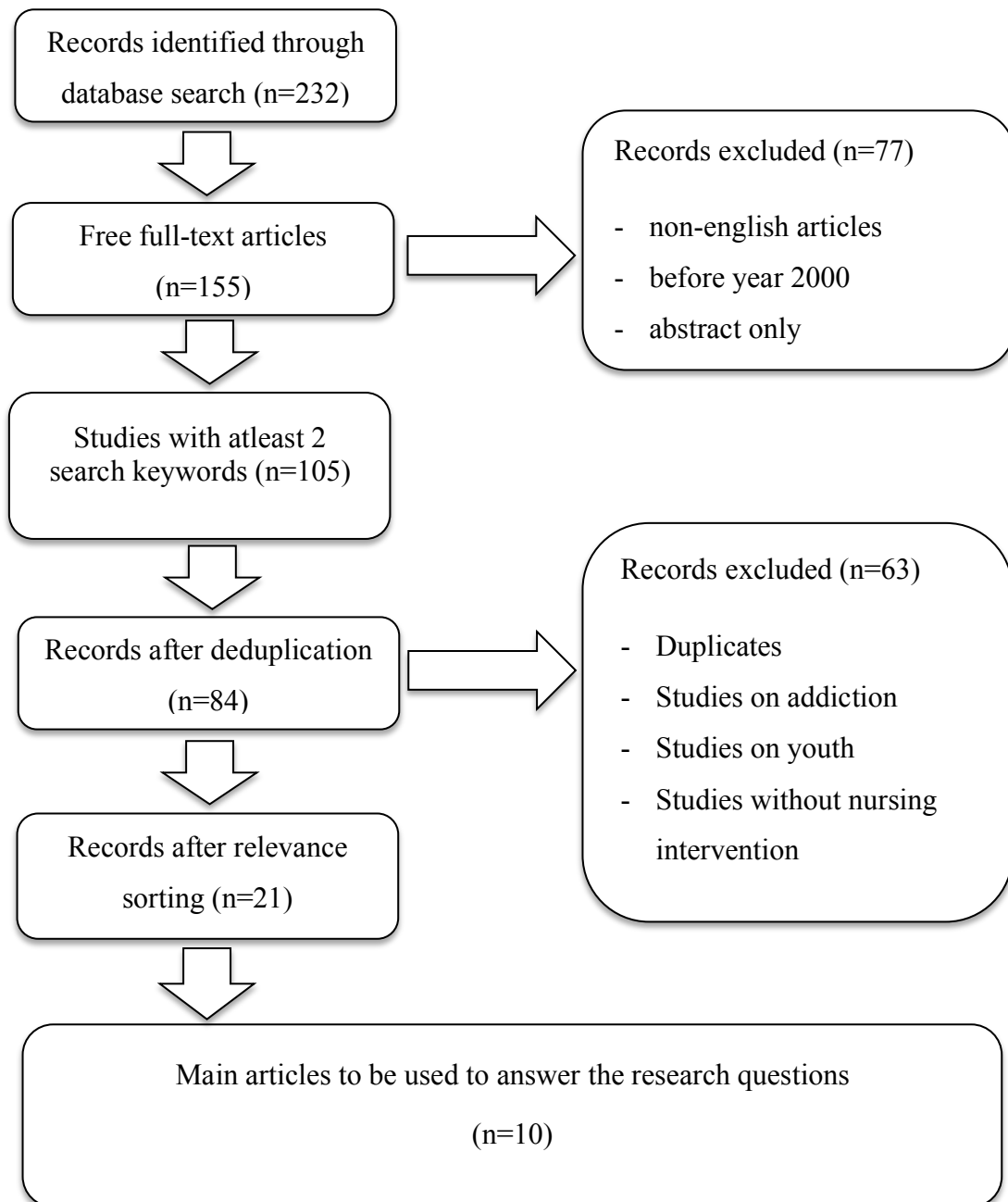


Figure 2 Selection Criteria Flowchart

Table 2 Summary of Articles Used

	Title	Author	Journal
1	Hypersexuality in Neurocognitive Disorders in Elderly People – A Comprehensive Review of the Literature and Case Study	Ibrahim, C. & Reynaert, C.	Psychiatria Danubina 2014
2	Challenges associated with the definition and assessment of inappropriate sexual behaviour amongst individuals with an acquired neurological impairment.	Johnson, et al.	Brain Injury 2006
3	A Study of Sexuality and Health Among Older Adults in the United States	Lindau, et al.	New England Journal of Medicine 2007
4	Inappropriate Sexual Behaviors in Dementia	Black, et al.	Journal of Geriatric Psychiatry and Neurology 2005
5	Treatment of Inappropriate Sexual Behavior in Dementia	De Giorgi, R. & Series, H.	Current Treatment Options of Neurology 2016
6	Approach to Inappropriate Sexual Behaviour in People with Dementia	Joller, et al.	Canadian Family Physician 2013
7	Diagnosis and Management of Behavioral Issues in Frontotemporal Dementia	Masood, M. & Huey, E.	Current Neurology and Neuroscience Reports 2012
8	Pharmacotherapy for Inappropriate Sexual Behaviors in Dementia: A Systematic Review of Literature	Ozkan, et al.	American Journal of Alzheimer's Disease & Other Dementias 2008
9	Sexuality and Health Care: Can we carry on Ignoring the Issue?	Sengupta, S. & Stubbs, B.	The British Journal of Occupational Therapy 2008
10	Dementia and Comorbidities: An Overview of Diagnosis and Management	Swanson, K. & Carnahan, R.	Journal of Pharmacy Practice 2007

## 5.2 Content analysis

The flow of content analysis in this literature review, as shown in figure 3, shows reading all data repeatedly from which codes are determined and derived. The codes are grouped into categories with which the biopsychosocial model is adapted primarily based on the results of the coding process. Each article undergoes similar process and examined repeatedly to ensure that information falls accordingly to its category as well as its relevance to the aim of this paper.

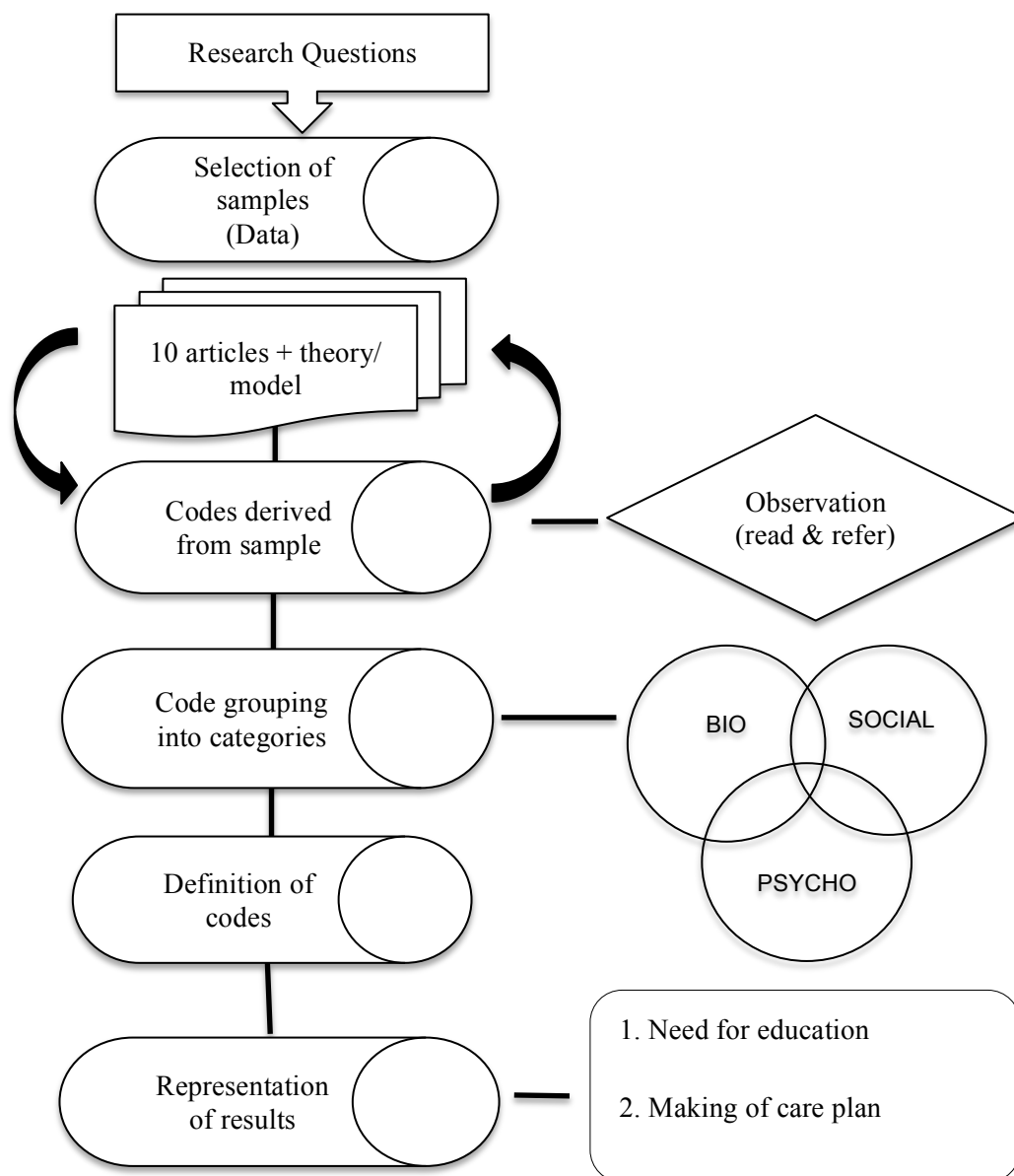


Figure 3 Content Analysis Flowchart

## 6 ETHICAL ASPECT OF THE RESEARCH STUDY

This study utilizes existing empirical data extracted from Arcada's academic databases in which authors are cited accordingly using the Harvard style of referencing. Interviews and surveys were not conducted by the author; but rather adapted existing data from sources such as scientific articles and case studies. The author accomplished this paper with the utmost consideration that every research regardless of its form should be well-planned and subject to review appropriately so to be considered legitimate. A research is not a good research when no other academic nor any person may repeat or re-check its claim. This having been said, will lead or encourage a research to be of good quality. In the process of accomplishing this paper, the author refers from time to time to Jeremy Jolly's Nursing & Health Research Skills Survival Guide handbook as seen in table to guide through the process and most importantly to avoid any form of aberrations in terms of the paper's ethics and compliance in addition to the writing guide provided by Arcada.

*Table 3 The principles common to all guidance on research ethics (Jolley J, 2013)*

Planned research must be subject to review by the appropriate research committee.
Research should be of good quality and be capable of meeting its aims.
Potential harm must be identified.
There must be informed and voluntary consent.
Confidentiality and anonymity must be respected.
Data should be held securely (data protection).
Participants have the right to withdraw from the study at any time, without giving reason and without prejudicing their care or treatment.

## 7 RESULTS

The author's first question is answered in the background chapter of this study. The triggering factors that lead to the occurrence of hypersexuality are laid down and case studies are presented to support its prevalence in geriatric care facilities, particularly in patients who exhibit symptoms of dementia. In hope to give light in preparing nurses towards managing hypersexual issues in nursing facilities, collated scientific articles are presented in the following sections of this paper.

According to Black et al. (2005), behavioral disturbances are common in people who have dementia and this can be unsafe and interfere with the care of patient at any given environment. There are different kinds of treatment for hypersexuality disorder and each nursing approach depends upon the urgency of the situation, types of behaviors and underlying medical condition of the patient. The management of hypersexuality disorder can be categorized into non-pharmacological and pharmacological approaches. Non-pharmacological approach can be divided into environmental, behavioral and educational. These interventions should involve not only the patients but also families and the nursing staff, bearing in mind that the aim is to try and promote an appropriate manifestation of sexual behavior rather than an eradication of it (Di Giorgie & Series, 2016). Black et al. (2005) wrote that it is best to attempt to educate the patient first about the inappropriateness of his behavior when hypersexuality disorder is apparent. It helps to avoid confrontation but rather carrying out the patient education process in a conversational manner in which the patient does not feel excessive guilt or shame. Nurses should pay attention to cues that triggers the behavior and it should be changed or avoided. There are different ways to avoid triggering factors of inappropriate sexual behaviors such as indulging the patient into social activities, avoiding overstimulating television programs (Black et al., 2005), magazines with sexy figures, switching from female to male nurses or caregivers and other distraction techniques like involvement in crafts, music or exercise (Di Giorgie & Series, 2016). Creativity might also lead to success like for example, a case report describing the provision of a 3-foot-tall stuffed doll to a man with dementia who was sexually aggressive toward women in his nursing home (Joller et al., 2013).



## **7.1 The need for education**

In hypersexuality, the most critical part is when to recognize that a behavior is inappropriate or whether a patient is displaying a hypersexual disorder. According to Sengupta & Stubbs (2008), healthcare professionals might be better equipped to deal with clients' personal sexuality and the potential risk of inappropriate sexual behavior if sexuality training were given a higher prominence in undergraduate education. The training will likely minimize assumptions and misconceptions when it comes to sexuality; but rather promote awareness and thus, will help to improve the ability of a nurse to conduct proper patient education and good management plans for such situations. Aside from re-educating the patient with what is normal and acceptable sexual behavior (Di Giorgie & Series, 2016), there is also a need for a suitable education with the families and the rest of the staff in the nursing care facility. The need for normal sexual expression while preventing inappropriate sexual behaviors should be emphasized (Black et al., 2005), bearing in mind that treatment of behavioral disturbances requires a complex therapeutic decision (Swanson & Carnahan, 2007).

## **7.2 Devising a good care management plan**

Proper education of nurses and caregivers will result to a good care management plan for hypersexuality. A good care management plan is based on a thorough assessment of a patient's personal, clinical and sexual history. It includes who is involved, what form the disorder takes, when and where it occurs, how frequent it is and other factors such as potential precipitants and consequences of the behavior (Di Giorgie & Series, 2016).

The key principles of management include carefully documented evaluation, treatment tailored to the individual patient; initial use of non-pharmacologic interventions (Joller et al., 2013) and it includes both nurse and patient education, support and so as behavioral interventions (Masood & Huey, 2012). There are some behavior measurement tools for patients with dementia that include items relating to inappropriate sexual behavior. The Ryden Aggression Scale contains a section on sexually aggressive behavior including making obscene gestures, touching body parts of another person, hugging, intercourse or kissing. The St. Andrew's Sexual Behavior Assessment (SASBA) is based on continuous direct observation of four categories of ISB, each with four levels

of severity, helping clinicians to standardize their documentation of ISB. A systematic physical and mental state examination and a review of the current medication regime must always be carried out (Di Giorgie & Series, 2016).

Furthermore, Ozkan et al. (2008) emphasized in their article that the first step in the management of sexual behaviors that are deemed inappropriate should be non-pharmacological management. If response to this approach is inadequate, pharmacological treatments should be initiated either alone or preferably in combination with non-pharmacological approaches. Medications should only be used when all other treatment methods have failed (Black et al., 2005). The pharmacological treatments for which there is evidence of efficacy in literature include antidepressants, antipsychotics, anti-convulsants, cholinesterase inhibitors, hormonal agents and beta-blockers (Di Giorgie & Series, 2016). Masood & Huey (2012) wrote that psychiatric medications could be helpful. Trazodone or selective serotonin reuptake inhibitor (SSRIs) can have some efficacy in reducing disinhibition, repetitive behaviors, sexually inappropriate behaviors and hypersexuality. Small doses of atypical antipsychotics may be helpful in decreasing agitation and verbal outbursts. In addition to the proven pharmacotherapy for hypersexuality, cimetidine and pindolol are also used along with it. However, it is important to be vigilant for side effects from hypersexuality's pharmacological treatments. Always observe carefully and discontinue medications that can precipitate or worsen these behaviors. Avoid medications like benzodiazepines as they can cause disinhibition (Black et al., 2005).

## **8 DISCUSSION**

Dealing with hypersexuality requires proper understanding of the phenomenon. This could only be achieved by acquiring suitable knowledge on what exactly it is, why it happens, on which events it may manifest and how to deal with its management in promoting health and quality patient care not only to patients but as well as to his environment. For example, sexual disinhibition may occur due to dementia and normal etiquette is often forgotten, there may be hallucinations, delusions and misidentifications. The normal senses of a person with progressive cognitive impairment gets deteriorated and this more likely result to the failure of displaying moral decorum. The findings in this paper convey that we must know when a sexual behavior is a hypersexual disorder. We should also know what are the precipitating factors that may result to this kind of behavior. Without suitable knowledge, one's judgment will most likely be over-influenced by preconceptions, assumptions and norms that are not conducive to the promotion of health and quality patient care.

### **8.1 The preparation for nurses**

As mentioned in the results chapter, knowledge is one of the key factors that build an efficient management plan in nursing. Awareness is likely to eliminate misconceptions and assumptions and that healthcare professionals might be better equipped to deal with clients' personal sexuality and the potential risk of inappropriate sexual behavior if sexuality training were given a higher prominence in undergraduate education (Sengupta & Stubbs, 2008). Sexuality education is a critical need in nursing. It prepares healthcare professionals at an early stage in promoting sexual wellness and giving them the capability to serve patients with reliable sources on sexuality-related issues (Shindel, 2015) such as hypersexuality. Looking into the nursing curriculums of polytechnic schools in Finland, Arcada University of Applied Sciences offers basic sexology as an elective study during the summer (ASTA, 2017) and Turku University of Applied Sciences offers sexuality in human life span as an alternative advanced nursing studies (TUAS, 2017). Given that a student is motivated to widen his understanding on human sexuality, it is indeed a very good thing that school offers the resources for this aspect of health promotion. On the other hand, it would probably be of big help to future healthcare pro-

professionals if they are introduced to sexuality studies as part of the mandatory courses in a regular curriculum. This will better equip everyone to the awareness of sexual wellness, disorders and its nursing interventions. Nevertheless, it is good to know that such resources are available nowadays.

## **8.2 Hypersexuality on a biopsychosocial perspective**

Looking into the biopsychosocial model that serves as the theoretical framework of this paper, it paves ways and direction to a more structured way of comprehending the disorder and devising a holistic care plan for a hypersexual patient. Identifying the various determinants of a patient's inappropriate sexual behavior and its interactions to one another gives a clearer perspective on its occurrence. The analogy of this approach is rather simple. If hypersexuality is primarily dealt with identifying the biological, psychological and social causes, then it will result to a proper assessment of the patient's condition. From this process including the diagnosis, healthcare professionals will be able to plan the management of the disorder more suitably by addressing each determinant and its precipitating factors. Should in any case neither psychological nor social approach found to be effective and will result to biological means as in medication treatments or a combination of approaches, there will be sufficient certainty in claiming that all resorts has been utilized and the management in dealing with hypersexuality may proceed with another form of care plan.

There are other models that can address the management of hypersexuality. The second closest to achieving the goal of this paper is the Ex-PLISSIT model. The PLISSIT model is first developed by Jack Annon and later on extended by Taylor & Davis (2006), hence the Ex-PLISSIT. The model is based on the idea that the majority of people can resolve their sexual related problems by following a basic four-step program – Permission (P), Limited Information (LI), Specific Suggestions (SS), and Intensive Therapy (IT). The model follows a vertical structure, requiring greater knowledge and training as one moves up each level (Taylor & Davis, 2007). As one of the aims of this paper is to bring awareness and to promote a common understanding on hypersexuality, this model lacks this aspect.

### **8.3 Managing hypersexuality**

In line with the management of hypersexuality, the assessment of suspected patients is very important. In order to carry out efficient nursing care plans, it is critical to have a proper patient assessment. In this stage, we are to evaluate the patient's behavior and measurement tools are available such as the Ryden Aggression Scale and the St. Andrew's Sexual Behavior Assessment (SASBA). Utilizing standardized assessment tools will help determine the level of severity of the disorder as well as the suitable course of action to control it. Bear in mind that a careful documentation of the assessment process should take place. It will serve as the starting point of the entire management of the patient's treatment. As Di Giorgie & Series (2016) wrote, a good management plan is based on a thorough assessment of a patient's personal, clinical and sexual history. It includes who is involved, what form the disorder takes, when and where it occurs, how frequent it is and other factors such as potential precipitants and consequences of the behavior.

The pharmacological and non-pharmacological approaches to hypersexuality can further be categorized as per the biopsychosocial model. Whereas pharmacological treatment falls under the biological aspect as it deals with substances and the physiology of the human body. The non-pharmacological approach encompasses the psychological and social aspects of managing hypersexuality. This approach should be utilized first and foremost, before we get into medication or pharmacotherapy to manage the hypersexual disorder. Planning and intervention of the treatment for hypersexuality is subjective to the patient's behavior. From the assessment, identifying the psychological and social determinants will address the needs of a patient in terms of his cognitive and behavioral wellness. Nurses will be able to determine what measures can be done to deal with the triggering factors of hypersexuality. Black et al. (2005) said that it is best to attempt to educate the patient first about the inappropriateness of his behavior, bringing them into the realization that what they are doing is socially indecent while at the same time, avoiding notions of shaming the patient. Psychological approach can be a powerful strategy in dealing with behavioral disorders such as hypersexuality. The strategy may also be used together with controlling the patient's environment and social ambience such as indulging the patient into social activities, avoiding overstimulating television

programs (Black et al., 2005), magazines with sexy figures, switching from female to male nurses or caregivers, involvement in crafts, music or exercise (Di Giorgie & Series, 2016). In non-pharmacological approach, it is also important to understand the patient. His current medical condition and drug prescriptions may somehow contribute to his hypersexuality disorder, one way or another. His psychological stability should be examined very well and so as his social background. Looking into these determinants will help in managing a suitable care plan for patients exhibiting hypersxuality. Figure 4 shows the algorithm for the treatment of inappropriate sexual behavior. The assessment process requires knowing the patient’s history including sexual, medical and cognitive functions. It shows how important it is to evaluate the patient’s behavior on a regular basis.

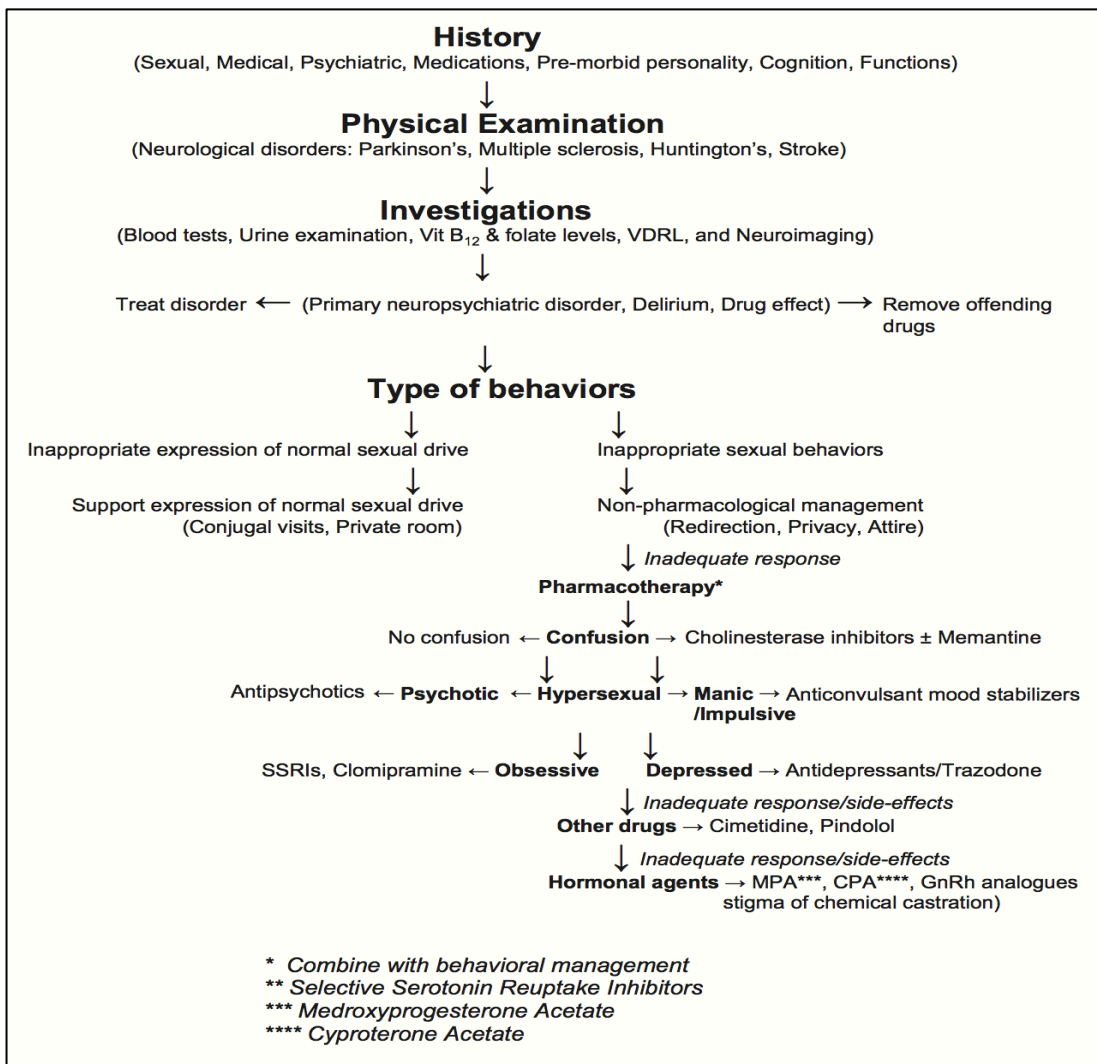


Figure 4 Algorithm for the treatment of inappropriate sexual behavior (Ozkan et al., 2008)

Figure 5 shows the pharmacological treatments used for inappropriate sexual behavior or also known as hypersexuality. These are the common medications being used and it also shows the behaviors it intends to treat as well as the side effects a patient may experience.

<i>Medication</i>	<i>Dose of Drug</i>	<i>No. of Patients</i>	<i>Behaviors to be Treated</i>	<i>Common Side Effects</i>
Paroxetine	20 mg/day	1	Disinhibition	Gastrointestinal disturbance, asthenia, sweating, tremors, dizziness, anxiety, headache, sedation
Citalopram	20 mg/day	1	Inappropriate disrobing	Gastrointestinal disturbance, sweating, dizziness, somnolence, tremors, headache, anxiety
Clomipramine	150-200 mg/day	2	Exposing, public masturbation, repeated touching	Sedation, gastrointestinal disturbance, weight changes, anxiety, tremors, sweating
Quetiapine	25 mg/day	1	Repeated masturbation	Sedation, orthostatic hypotension, headache, dizziness, constipation
Trazodone	100-500 mg/day	4	Hypersexuality	Sedation, orthostatic hypotension, dizziness, headache, gastrointestinal disturbance, priapism
MPA	100-300 mg/wk every 2 weeks (IM)	6	Masturbation, exposure, fondling, attempting to have sex with others	Weight changes, abdominal pain, dizziness, nausea, depression, insomnia, pelvic pain, breast pain, edema
Diethylstilbestrol	1 mg/day	1	Forcing penis into the mouth of another resident	As in MPA
Estrogen	0.625 mg/day; 0.5-0.10 mg/day (patch)	39	Hypersexuality	As in MPA
Leuprolide acetate	7.5 mg/month (IM)	2	Hypersexuality, exhibitionism	As in MPA
Cimetidine	600-1600 mg/day	20	Masturbation, fondling, exposing, sexual hallucination	Gastrointestinal disturbance, confusion, increased serum transaminases, rash, blood dyscrasias
Pindolol	40 mg/day	1	Verbal comments, hugging, kissing	Bradycardia, congestive heart failure, hypotension, lightheadedness, depression, nausea, vomiting

Note: MPA, medroxyprogesterone acetate; IM, intramuscular.

Figure 5 Drugs used for inappropriate sexual behavior (Black et al., 2005)

## **9 CONCLUSION**

The questions in this literature review has been answered by different articles and empirical studies collated by the author. In spite of the scarcity of scientific studies on hypersexuality, findings show that academics have attempted to address this phenomenon in hope to gain a definitive understanding and management of its occurrence. Moreover, the World Health Organization will consider the inclusion of hypersexual disorder in the International Classification of Diseases (ICD) in 2018. Case studies have been found to support its prevalence and hypersexual disorder is not a very rare occurrence. Sexuality-related issues are not discussed as much as it should be due to the sensitivity of the subject. For some, depending on cultural and religious background considers this subject to be a taboo. In the world of healthcare profession such as nursing, this is something that should not be ignored, frowned upon or even laughed at; but rather to be embraced and be indulgent with open mind as this is not just a human right but also a part of holistic human wellness.

This study finds out that there is a critical need for education in the nursing profession as early as possible. This will prepare nurses in promoting quality care to hypersexual patients and their environment. The realization of a good nursing intervention is through suitable knowledge, while a good nursing intervention in managing the disorder is by providing a holistic approach and that is considering the biological, psychological and social aspects of both the causes and ways to manage them.

### **9.1 Recommendations**

The author recommends that sexual education be constituted as a part of a regular curriculum in university of applied sciences in lieu of being an elective course. Hopefully this literature review will encourage readers, especially those who are in the healthcare field to explore more about sexual wellness and the various disorders that may come with it. It will help improve one's own nursing judgment in dealing with patients who exhibit hypersexuality.



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