Skin Cancer Prevention and Detection in the Young Adult Population

(NAME REMOVED)

California State University Channel Islands
Skin Cancer Prevention and Detection in the Young Adult Population

Introduction

Skin cancer is the most common cancer in America, each year over one million people will be diagnosed and it is estimated that one in five adults will develop skin cancer in their lifetime (Siegel, 2010). The incidence of skin cancer has increased significantly over the past three decades and is increasing more rapidly than any other form of cancer in America (Wolff et al., 2009). The Center for Disease Control and Prevention categories skin cancer as an epidemic, meaning that there is currently a higher than normal and widespread occurrence of skin cancer in the U.S. (Siegel, 2010). It is therefore evident that skin cancer presents a formidable threat to the public's health. The young adult population is especially at risk due to the increased sun exposure, intentional sun exposure, decreased sun protection behaviors, and perceived risks and benefits of sunbathing during this developmental period (Hoffner & Ye, 2009). Skin cancer is the most preventable form of cancer and if detected early is highly curable (Mahler & Kulik, 2007). In order to effectively educate the young adult population on skin cancer prevention and techniques factors such as population traits, developmental stages, models of health education, literacy, learning theories, needs, and styles need to be as assessed and formatted into a teaching plan.

Skin cancer is the uncontrolled proliferation of abnormal skin cells and manifests in three major forms; squamous cell carcinoma, basal cell carcinoma, and melanoma (Yoder, 2005). Melanoma is the least common but deadliest form of skin cancer and tends to metastasize rapidly (Yoder, 2005). Approximately 90% of skin cancers are caused by ultraviolet radiation, a known and preventable human carcinogen (Siegel, 2010). Ultraviolet radiation emits wavelengths that in sufficient quantity can damage DNA causing genetic mutations resulting in atypical cellular proliferation, it is found in natural sunlight and commercial tanning lamps, beds, and salons.
Prevention of skin cancer involves abstaining from the use of artificial tanning, limiting exposure to the sun and regularly utilizing sun protection items such as sunscreen hats and clothing (Andrew, 2009). Approximately four out of five skin cancers are entirely preventable (British Association of Dermatologists, 2008). Detection of skin cancer revolves around the early recognition and treatment of suspicious lesions, if detected before vertical growth and metastasis it is highly treatable with a good prognosis and 91% five year survival rate (Yoder, 2005). Skin cancer prevention and detection are of vital importance in addressing the public health threat of skin cancer.

Population Identification

Studies have shown that young adulthood, 18-30 years of age, is the developmental period where the greatest exposure to and least protection from ultraviolet radiation occurs and is thus the time period during which the greatest risk of developing skin cancer occurs. Although most skin cancers are diagnosed in middle adulthood past the age of 50 (Boyles, 2005), melanoma is the most common form of cancer in young adults aged 25-29 years old (The Skin Cancer Foundation). Individuals receive the majority of their lifetime sun exposure before the age of 21 and the presence of severe blistering sunburns in adolescence and young adulthood increases the probability of malignant melanoma two fold (Harris, 2000). Additionally intentional sun exposure behaviors are more commonly observed in adolescence and young adulthood than any other developmental period (Kasparian et al., 2009). A comprehensive literature review of skin cancer related prevention behaviors published in the Journal of Behavioral Medicine in 2009 found that multiple studies have shown young adults as more likely to experience sunburn, utilize tanning salons and sun beds, sunbathe intentionally, spend more time in the sun, and as less likely to use sun protection (Kasparian et al., 2009). It is therefore evident that to reduce the probability of skin cancer development young adulthood is the optimal
population to target for skin cancer prevention and detection education. The teaching plan is thus targeted to the young adult population between the ages of 18 and 30.

The teaching plan is developed to target both genders. The aforementioned literature review study of skin cancer prevention behaviors analyzed multiple studies and found that gender was the demographic trait most correlated with sun protection behaviors (Kasparian et al., 2009). Overall the studies found that females were more likely to utilize forms of sun protection and express more positive attitudes associated with their use (Kasparian et al., 2009). However females also expressed a significantly more positive view of and engaged more often in intentional sun exposure through tanning, sunbathing, and tanning salons (Kasparian et al., 2009). Another study conducted in 2002 concerning college students attitudes towards skin cancer risks showed that 47% of the undergraduate and graduate students, females more than males, surveyed reported that they had used a sun lamp at least once in the preceding year, and that 90% of those students reported they were aware of the cancer and aging risks involved but used them none the less (Knight et al., 2002). The comprehensive literature review found that males on the other hand report a greater frequency of sunburns, greater amounts of non intentional time in the sun, perceive greater barriers to the use of sunscreen and sun protection, and are less likely to use sun protection techniques (Kasparian et al., 2009). It is apparent that both males and females are at risk of developing skin cancer and can benefit equally from prevention and early detection education.

Socioeconomic status, level of education, and culture are also factors in the population identification and targeted development of the teaching plan. Evidence supports a positive correlation between level of education and sun protective behaviors, but there is conflicting research regarding the association between socioeconomic status and protective behaviors (Kasparian et al., 2009). Young adults tend to ignore the risks of sun exposure in favor of the
perceived increased appearance benefits despite their level of awareness and education (Knight et al., 2002). Young adults in the 18 to 30 age range have usually completed a high school education and therefore the teaching plan will target an audience population with at least a 12th grade level of education. Individuals from every culture, race, and creed are at risk of developing skin cancer. Individuals with darker skin pigmentation have increased epidermal melanin, a natural skin protection factor, in their skin which does not burn as easily as fair skinned individuals (Siegel, 2010). However due to widespread misconceptions and delays in seeking treatment, people of darker ethnicities experience a higher skin cancer mortality rate than fairer ethnicities in America (Andrew, 2009). Skin cancer does not discriminate and therefore young adults of varying cultures, education, and socioeconomic levels are all at equal risk of developing skin cancer and would benefit from prevention and detection education. The teaching plan will target male and female young adults between the age of 18 and 30 who are their own self primary caregiver with at least a 12th grade education from varying cultures and socioeconomic backgrounds.

Learning Theory

The teaching plan will utilize a cognitive learning theory approach to educate young adults on skin cancer prevention and detection. A learning theory serves to describe, explain, and predict how people learn by integrating common constructs and principles into a central theory (Bastable, 2008). Cognitive learning theory ascertains that people learn as a result of their cognitions and the way they perceive, process, organize, understand, and interpret information based on their past experiences (Bastable, 2008). Learners reorganize the new information into new insights and understanding by either accommodation or assimilation, making the new information fit with their existing interpretations or by changing their interpretations to fit with the new information (Bastable, 2008). Cognitive learning theory
changes behavior by changing cognitions (Bastable, 2008). Cognitive learning theory works well with young adults because the motivation for young adults to learn is internal drives such as self esteem and a better quality of life (Bastable, 2008). Many young adults perceive that the positive benefits of sun exposure associated with a better quality of life, such as increased physical attractiveness and appearing younger and healthier with a tan, outweigh the risks (Kasparian et al., 2009). For example a 2001 study of Swedish young adults found that those who were aware intentional sun exposure and tanning was harmful still reported sunbathing just as often as those who reported perceiving sunbathing as not harmful (Branstrom et al., 2001). Using the cognitive learning theory, the teacher will strive to change the faulty cognitions and perceptions young adults may have concerning skin cancer risks and thus change their sun exposure behaviors (Bastable, 2008). These cognitions and perceptions are socially and culturally influenced; another study found that young adults who believed their peers favored a tanned appearance were less likely to engage in adequate sun protection behaviors (Kasparian et al., 2009). This can be explained by social constructivism, a perspective within cognitive learning theory which states that people's cognitions are heavily influenced by their social and cultural experiences (Bastable, 2008). Because skin cancer affects individuals from various cultures and backgrounds cognitive learning theory is an effective learning theory to utilize in skin cancer education because it takes into account the role of media, peers, and social pressures in many cultures on sun behaviors (Bastable, 2008). The teaching plan will utilize cognitive learning theory to educate young adults on skin cancer prevention and detection by changing and influencing their existing cognitions and perceptions regarding sun exposure.

Assessment of Learners Needs

After the population has been identified and learning theory selected the next step in the teaching plan is to assess and determine the learner's needs. An accurate assessment of the
learners needs is an important educational task which ensures that optimal learning occurs, identifies knowledge deficits and desires, prioritizes information for goal settings, enables planning of appropriate education interventions, and saves time and resources (Bastable, 2008). It is important for young adults to recognize and understand their existing cognitions as well as vital for the teacher to understand what the learners attitudes towards sun exposure and skin cancer are before instruction begins. An informal conversation at the start of the instructional period would serve to open conversation regarding the young adult's perceptions, beliefs, and cognitions regarding the risks and benefits of sun exposure, skin cancer, and perceived damage (Bastable, 2008). The educator can ascertain their preexisting beliefs, factors that influenced those beliefs, and identify the level of change required from this conversation. A formal pretest can help the educator identify specific content areas that need to be covered in more depth as well as serve as a tool for determining what learning has taken place after instruction by comparing pre and post test scores (Bastable, 2008). An example of a pre and post test used to assess skin cancer prevention and detection knowledge is attached in appendix B.

Assessment of Learners Learning Style

Assessing the learners preferred learning style is an essential step in the educational process. Learning style refers to the methods by which learners most efficiently and effectively perceive, process, store and retrieve new information (Bastable, 2008). The educator's task is to accurately assess the learner's preferred and strongest learning style in order to tailor the teaching methods and instructional design to the individual, thereby increasing the probability learning will occur (Bastable, 2008). Young adults as a population utilize a wide variety of learning styles influenced by their individual unique biological, sociological, and environmental influences (Bastable, 2008). An informal interview at the beginning of instruction asking the young adults as individuals and as a group how they learn best can serve to provide valuable information.
about the learners own insights into their preferred style (Bastable, 2008). A formal learning style instrument, such as the Productivity Environmental Preference Survey (PEPS), can identify specific learning styles and factors that affect how people prefer to learn (Bastable, 2008). The PEPS, a self reporting instrument, is the adult version of the Dunn and Dunn learning style inventory that identifies five basic stimuli that affect the ability to learn (Bastable, 2008). The basic stimuli include environmental, emotional, sociological, physical, and psychological elements (Bastable, 2008). Based on the information obtained from these self reports the educator can then manipulate the environment and instruction to fit the individual learners preferences and in a group class attempt to accommodate and include each learners learning patterns (Bastable, 2008).

Developmental and Cognitive Stage of Learner

The young adult population targeted in the teaching plan, aged 18-30, are in Erickson's intimacy versus isolation psychosocial development stage where they strive to establish trusting relationships, make lifestyle choices, and fulfill commitments to personal, occupational, and social goals (Bastable, 2008). Their goal is to maintain the independence and self sufficiency they gained during adolescence (Bastable, 2008). Cognitively young adults are in Piaget's formal operations stage of cognitive development and possess the ability to understand abstract concepts, logical thought, deductive reasoning, systematic planning, critically analyze, and make decisions regarding their evolving roles (Bastable, 2008). Their cognitive and physical capacities have reached their peak and as a population are generally very healthy with limited exposure to health care (Bastable, 2008). Because of this young adults are often the most overlooked and least educated population regarding health promotion behaviors (Bastable, 2008). This poses an inherent problem in that young adulthood is also the crucial time period in which many lifestyle behaviors are established (Bastable, 2008). As previously stated young

Comment [CSU6]: How can you do this when most of your content is lecture?
adulthood is the time during which sun exposure is the greatest, positive attitudes towards intentional sun exposure are most often expressed, and the least amount of sun protection behaviors are utilized and thus the greatest potential for developing skin cancer occurs during these formative years (Hoffner & Ye, 2009). Developmentally young adults understand that the lifestyles and paths they chose during young adulthood will directly affect them for years, a potential source of stress, and are thus motivated to learn by practical and applicable information (Bastable, 2008). They are concerned with how the education will directly benefit them and are motivated to learn about the implications of various lifestyle choices (Bastable, 2008). Utilizing these developmental traits the educator can develop instructional materials and methods that emphasize the direct health benefits of decreased sun exposure and the long term consequences later in life of prolonged ultraviolet radiation exposure during young adulthood (Bastable, 2008). Educating young adults about the risks of sun exposure and the signs and symptoms of skin cancer during this time period is a vital task as they establish lifestyles behaviors and paths.

Health Education Model

Health education models are theories and frameworks that describe, explain, and predict health behaviors (Bastable, 2008). They serve to increase the range of educational strategies that promote compliance to health regimens, maintain patient behavior, promote changes to desired behaviors, and facilitate learner motivation (Bastable, 2008). The health education model most applicable to the teaching plan concerning skin cancer prevention and detection in young adults is the health promotion model. The health promotion model focuses on health promotion and actualizing health potential, as opposed to the disease prevention orientations of some other models, through approach behaviors instead of avoidance (Bastable, 2008). The health promotion model targets positive health outcomes and has been shown to decrease barriers to health care access and promote participation in health promoting activities (Bastable, 2008). The
Skin Cancer Prevention and Detection

health promotion model recognizes the role of individual experiences, perceptions and beliefs on health behaviors; it proposes that new information is cognitively processed before intent or commitment to action on the health behavior is made (Bastable, 2008). Young adults come from varying backgrounds and cultures that impact their experiences and perceptions on skin cancer risks, the health promotion model factors these variables into its predictions of health behaviors. Additionally, the health promotion model is especially applicable to young adults because developmentally they are making lifestyle choices with far-reaching implications and the health promotion model can positively impact those choices.

Population Literacy Assessment

Before implementing a teaching plan and educational program, literacy levels of the intended audience population must be assessed to ensure information is written at the appropriate reading level and style (Bastable, 2008). Learners must be able to understand the material presented to them if they are to adhere to treatment regimens, make informed decisions, maintain health, and manage care independently (Bastable, 2008). Although the teaching plan is targeted at an identified audience of young adults with at least a 12th-grade education, research has found that grade level achieved is an insufficient predictor of literacy, on average people read at a level two to four grades below their highest level of obtained education, and the average reading grade level of the American adult is the 8th grade (Bastable, 2008). Therefore, a formal assessment of literacy is required before instruction begins. The Test of Functional Health Literacy in Adults (TOFHLA) measures adult’s literacy skills and level (Bastable, 2008). It assesses patients reading and numeracy comprehension for medical literature (Bastable, 2008). It is applicable to young adult skin cancer education because it has proven reliability, takes a short amount of time (12-20 minutes) to administer, is available in multiple languages, and identifies learners with lower comprehension skills (Bastable, 2008). Educators can utilize the results of
the individual or cumulative class TOFHLA scores to personalize instructional materials and lectures to their abilities. An example of some of the STOFHLA (short TOFHLA) assessment questions are attached in appendix

Written Teaching Plan Purpose, Goals, and Objectives

The purpose of a teaching plan targeted at educating young adults skin cancer prevention and detection is as follows: To provide young adults in the 18-30 year age range information regarding skin cancer prevention and detection and ultimately to reduce the incidence of skin cancer. By providing this information the goal of the teaching plan is that students will: be able to recognize the signs and symptoms of skin cancer, regularly engage in behaviors providing ultraviolet radiation (UV) protection, and ultimately prevent the development of skin cancer. The objectives of the teaching plan are that following a 60 minute teaching session, members of the class will be able to: identify three sources of UV radiation, describe five ways to prevent the development of skin cancer, explain the importance of UV protection during young adulthood, differentiate between the health risks and misconceptions of intentional UV exposure, describe each component of the ABCDE skin cancer warning sign system with 100% accuracy, and demonstrate the steps of a skin self examination.

Teaching Plan Content Overview

The 60 minute class will cover content relating to skin cancer prevention and detection techniques. Specifically skin cancer detection utilizing the ABCDE warning sign system and skin self examination will be addressed. A recent study examining the self skin examination practices of young adults surveyed 190 U.S. college students and found that 33.2% of students reported performing a self skin examination in their lifetime but that only 5.8% of those students had examined their entire body (Arnold & Dejong, 2005). Among the reasons for not performing a self exam 55.9% reported a lack of knowledge regarding what to look for, 54.3% reported
never thinking of it, and 33.1% reported not realizing it was recommended (Arnold & Dejong, 2005). It is therefore evident that a need exists to educate young adults on the benefits of and correct methods of early skin cancer detection. Additional content will cover types and causes of skin cancer, sources of UV radiation, interventions and behaviors that decrease UV exposure or increase UV protection, the health risks of UV exposure, and the health benefits of decreasing UV exposure. Multiple studies have demonstrated that between 42-76% of young adults intentionally sunbathe to acquire a tan and that 36-84% of those sunbathers report experiencing sunburns after intentional UV exposure (Kasparian et al., 2009). Given the large proportion of young adults whom intentionally engage in UV exposure it is apparent the need for education regarding the causes of skin cancer, health risks of UV exposure, sun protection methods, and cancer prevention strategies exists. To effectively prevent and detect skin cancer early knowledge of this content is required and thus the class session will cover them in depth.

Instructional Methods, Resources, and Time Allotment

Instructional methods and resources utilized during the 60 minute class to cover the aforementioned content will include a pre test to assess existing knowledge (Appendix B), informational PowerPoint presentation lecture (Appendix E), a short video "Tanning Is Out, Your Skin Is In" (Melanoma Foundation New England, 2010), an informational handout regarding the skin cancer detection strategies (Appendix D), UV photographs, group discussion, and a question and answer period. The UV photograph resource and instruction method was included because research has shown that appearance based interventions motivate UV protection behaviors in young adults (Mahler & Kulik, 2007). In a study of tanning booth use investigators found that showing booth users UV photos of themselves influenced their tanning cognition index, that is they demonstrated more negative attitudes towards tanning booth use and a decreased willingness to utilize them after viewing the photos (Mahler & Kulik, 2007). These
photographs show individuals their not yet visible skin damage from UV radiation and have proven effective in changing young adults cognitions regarding the risks and benefits of intentional UV exposure. The wide variety of instructional methods and resources reflects the varied learning styles the class members possess. Time allotment for each instructional method is divided into the 60 minute teaching session, exact time allotment for each method can be found in the Teaching plan (Appendix A).

Evaluation Methods

Evaluation of the learning objectives and effectiveness of the class will be assessed utilizing the same pre test administered before instruction as a post test after instruction (Appendix B). This will enable a direct comparison of scores and a concrete evaluation of what content was mastered or conversely what content was not retained by the class. Additionally a return demonstration of the correct steps of a self skin examination, group discussions, and a question and answer period will allow the educator to assess the level of learning and content mastery. Class members will be allowed time to voice their input and suggestions regarding course improvements during the question and answer period.

Conclusion

Skin cancer, the most preventable form of cancer, is a growing epidemic and public health threat in America (Arnold, 2005). Young adults are especially at risk of developing skin cancer due to the increased UV exposure, decreased UV protection, and perceived benefits of exposure expressed during this developmental period (Yoder, 2005). Targeting the young adult population for skin cancer prevention and detection education proves to be the most proactive strategy for tackling the battle against skin cancer (Arnold, 2005). The learning needs and styles of male and female young adults in the 18-30 age range from varying cultures, socioeconomic, and higher education levels were assessed using informal conversations, pre-tests, and feedback.
A cognitive learning theory was utilized to frame the educational interventions and enhance the likelihood of learning and behavioral changes. The young adult population’s developmental need for continued independence, relevant information, and cognitive formal operations ability to critically analyze situations was capitalized upon when creating and tailoring educational content to their expressed needs. A health promotion model was utilized to address the lack of health promotion education that occurs in young adulthood and emphasize the implications of the numerous career, relationship, and lifestyle choices young adults find themselves making. Literacy was assessed using a formal TOFHLA assessment to ensure adequate transference of information to the learners was possible. All these variables were equally factored into creating, tailoring, and implementing the teaching plan. Current research from multiple sources were included to support and provide evidence regarding the drastic need for skin cancer prevention and detection education, as well as the importance and relevancy of prevention education in young adulthood, and the impact of early detection on treatment and prognosis. Educational intervention strategies and information content chosen were also backed by adequate and relevant supporting research. To effectively control the prevalence of skin cancer education regarding prevention and detection needs to be addressed and initiated in the young adult population, the demographic with the greatest potential to impact the severity of the epidemic. The outlined teaching plan is a valuable tool to address and positively impact the public health threat of skin cancer.
# Appendix A: Teaching Plan

## Skin Cancer Prevention and Detection in the Young Adult Population

**Purpose:** To provide young adults in the 18-30 year age range information regarding skin cancer prevention and detection and ultimately to reduce the incidence of skin cancer.

**Goal:** Class members will be able to recognize the signs and symptoms of skin cancer, regularly engage in behaviors providing ultraviolet radiation (UV) protection, and ultimately prevent the development of skin cancer.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Content Outline</th>
<th>Method of Instruction</th>
<th>Time Allotted</th>
<th>Resources</th>
<th>Method of Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify three sources of UV radiation</td>
<td>Types and causes of skin cancer</td>
<td>Lecture</td>
<td>5 minutes</td>
<td>PowerPoint</td>
<td>Post-test</td>
</tr>
<tr>
<td>2. Describe five ways to prevent the development of skin cancer</td>
<td>Prevention tips, strategies, recommendations,</td>
<td>Lecture</td>
<td>10 minutes</td>
<td>PowerPoint</td>
<td>Post-test</td>
</tr>
<tr>
<td>3. Explain the importance of UV protection during young adulthood</td>
<td>Aging/health risks, consequences, and complications, prevention benefits</td>
<td>Lecture, Group discussion</td>
<td>15 minutes</td>
<td>PowerPoint</td>
<td>Post-test, Question and answer, Group discussion</td>
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<tr>
<td>4. Differentiate between the health risks and misconceptions of intentional sun exposure</td>
<td>Tanning photo aging information, peer/ media influence</td>
<td>Lecture, Group discussion, Media</td>
<td>15 minutes</td>
<td>PowerPoint, Web access, UV photos</td>
<td>Post-test, Question and answer, Group discussion</td>
</tr>
<tr>
<td></td>
<td>Signs and symptoms of skin cancer</td>
<td>Lecture</td>
<td>5 minutes</td>
<td>PowerPoint</td>
<td>Post-test</td>
</tr>
<tr>
<td></td>
<td>Benefit of early detection, SSE steps, body map</td>
<td>Lecture</td>
<td>10 minutes</td>
<td>Written handout</td>
<td>Return demonstration</td>
</tr>
<tr>
<td>5. Describe each component of the ABCDE skin cancer warning sign system with 100% accuracy</td>
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<tr>
<td>6. Demonstrate the steps of a skin self examination</td>
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</tr>
</tbody>
</table>

Comment [CSU8]: Where is the video in the tanning bed?

Comment [CSU9]: Return Demo
"A Plan to Promote the Prevention and Early Detection of Skin Cancer" Pre and Post Test (Harris, 2000).

Please mark a T for true or an F for false in the box prior to the statement.

----- Fair-skinned persons who freckle easily are at high risk for melanoma.
----- Persons who work outdoors are not at risk for skin cancer.
----- Wearing hats, protective clothing, and sunscreen while in the sun will prevent melanoma.
----- Persons who have had significant sunburns in childhood are not at risk for melanoma.
----- Those with a suspicious lesion need to be evaluated by a dermatologist.
----- Persons should avoid exposure to the sun between the hours of 10 am and 2 pm.
----- Melanoma is not a major public health problem at this time.
----- Melanoma is a curable disease in most cases if diagnosed in the early stages.
----- The incidence of melanoma is beginning to stabilize.
----- Most people who understand the dangers of the sun avoid exposure to it.
----- The use of tanning beds has increased in the past 10 years.
----- African Americans are not at risk for skin cancer.
----- Patients always use the UV index to determine when to avoid the sun.
----- Wearing sunscreen will always prevent melanoma.
----- Most of a person's lifetime exposure to sunlight occurs in the years before age 18.
----- Those who take infrequent vacations to sunny areas are at risk for melanoma.
----- With proper prevention, the incidence of melanoma should begin to decrease in 5 years.
----- Asians are at high risk for skin cancer.

In the "ABCDE" of melanoma prevention:
A stands for
B stands for
C stands for
D stands for
E Stands for

HAND PATIENT THE READING COMPREHENSION PASSAGES TO BE COMPLETED. FOLD BACK THE PAGE OPPOSITE THE TEXT SO THAT THE PATIENT SEES ONLY THE TEXT.

PREFACE THE READING COMPREHENSION EXERCISE WITH:

"Here are some other medical instructions that you or anybody might see around the hospital. These instructions are in sentences that have some of the words missing. Where a word is missing, a blank line is drawn, and 4 possible words that could go in the blank appear just below it. I want you to figure out which of those 4 words should go in the blank, which word makes the sentence make sense. When you think you know which one it is, circle the letter in front of that word, and go on to the next one. When you finish the page, turn the page and keep going until you finish all the pages."

PASSAGE A: X-RAY PREPARATION

Your doctor has sent you to have a_____X-ray.

a. stomach  
b. diabetes  
c. stitches  
d. germs

You must have an_____stomach.

a. asthma  
b. empty  
c. Incest  
d. anemia

Do not eat ___ ___ ___

a. appointment.  
b. walk-in.  
c. breakfast.'  
d. clinic

I agree to give correct information to_____if I can receive Medicaid.

a. hair  
b. salt  
c. see  
d. ache
Appendix D. Skin Cancer Detection Strategies Class Handout

**ABC's of Skin Cancer**

The ABC's of skin cancer is a mnemonic developed to help you remember and recognize the warning signs of skin cancer. Look for these signs during your monthly skin self examinations. If you observe any of these signs in your moles or pigmented spots immediately make an appointment with your physician for further evaluation.

- **Asymmetry**: One half doesn't match the appearance of the other half
- **Border**: The edges are irregular, ragged, or blurred
- **Color**: The color or pigmentation is not uniform and/or has shades of tan, brown, or black, or sometimes white, red, or blue
- **Diameter**: The size of the mole is greater than the size of a pencil eraser, about 6 mm or 1/4 of an inch
- **Evolving**: The shape, size, color of the mole changes over time

**Skin Self Examination**

The American Academy of Dermatology recommends that you "check your birthday suit on your birthday" every year. Regular self examinations are important tools that alert you to changes in your skin and aid in the early detection of skin cancer. They should not take more than ten minutes and are ideally performed monthly. You will need a bright light, a full-length mirror, a hand mirror, 2 chairs or stools, a blow dryer, body maps and a pencil.

1. Examine your face, especially the nose, lips, mouth, and ears- front and back. Use one or both mirrors to get a clear view.

2. Thoroughly inspect your scalp, using a blow dryer and mirror to expose each section to view. Get a friend or family member to help, if you can.
3 Check your hands carefully: palms and backs, between the fingers and under the fingernails. Continue up the wrists to examine both front and back of your forearms.

4 Standing in front of the full-length mirror begin at the elbows and scan all sides of your upper arms. Don't forget the underarms.

5 Next focus on the neck, chest, and torso. Women should lift breasts to view the underside.

6 With your back to the full-length mirror, use the hand mirror to inspect the back of your neck, shoulders, upper back, and any part of the back of your upper arms you could not view in step 4.

7 Still using both mirrors scan your lower back, buttocks, and backs of both legs.

8 Sit down; prop each leg in turn on the other stool or chair. Use the hand mirror to examine the genitals. Check front and sides of both legs, thigh to shin, ankles, and tops of feet, between toes and under toenails. Examine soles of feet and heels.

Remember monthly self-exams are the best way to ensure that you don't become another statistic in the battle against skin cancer! Notify your physician if you observe any irregularities, developments, or suspicious changes on your skin.

Information obtained from:
The Skin Cancer Foundation (The Skin Cancer Foundation, n.d.)
Four Points Dermatology (Four Points Dermatology, 2010)
Appendix E

Skin Cancer Prevention and Detection in the Young Adult Population

(Name Removed)
Nrs 352

Introduction

- Research indicates that 42-75% of young adults intentionally sunbathe
  - Most of a person's lifetime sun exposure occurs before the age of 31
- Objective: Following a 60 minute teaching session, participants will be able to
differentiate between the misconceptions and health risks of intentional UV exposure

Tanning Myths

- 1. Having a golden-brown tone is healthy
- 2. Tanning beds are a safe way to tan
- 3. Using a sunless tanning product or getting a base tan protects your skin

Healthy?

- Tanning is the skin's natural way of protecting itself from UV radiation
  - The skin darkens in an imperfect attempt to prevent further DNA damage
  - Melanin, the brown pigment in skin, helps block out UV rays = increased UV exposure increases melanin production in skin for protection
- DNA damage leads to genetic mutations and uncontrolled cellular proliferation = skin cancer
- 80% of skin cancers are caused by UV radiation

Healthy?

Extent of damage not visible at first... a tan is the body's way of protecting itself from further damage not enhancing its appearance
- UV photography: selective absorption of UV light by epidermal melanin easily shows hyperpigmentation

Health Risks of UV exposure

- Skin cancer plus...
- Sunspots
- Photo aging: collagen breakdown
- Wrinkles
- Leathery skin
- Loss of elasticity
- Premature aging
- Cataracts
- Inflammation of the eyes
- Immune system suppression
**Tanning Beds, Lamps, Salons**

- Tanning is Out, Your Skin is In
- Tanning beds work by exposing the skin to UV(A) radiation
  - UVB: responsible for sunburns – stronger in natural sunlight
  - UVA: leads to more long-term sun damage, more likely to cause melanoma – stronger in artificial tanning lamps and beds

**Base Tans and Sunless Tanning Product = Protection?**

- Base tans: offer some protection from acute sunburns
  - Damage for protection?
- Sunless products: change color of skin by staining the dead cells in the skin’s outer layer
  - Doesn’t stimulate melanin (absorbs UV rays)
  - Production:
  - Offers no protection from UV rays

**Protect Yourself!**

- Tanning is NOT healthy or pretty
- Tanning beds, base tans, and sunless products are not a good alternative
- There is no such thing as a healthy tan
  - Only damage
- Reduce your risk of skin cancer by decreasing exposure and increasing protection


# Rubric for Teaching Project Paper

**Task Description:** Write a Teaching project paper and teaching plan (5-8 pages). Your topic must be by the instructor.

**Total points 125**

<table>
<thead>
<tr>
<th>1. Thesis Statement</th>
<th>Excellent</th>
<th>Competent</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Points</strong></td>
<td>Consistently does the following: Clearly identifies the subject and the content of the teaching project. Teaching project subject is centered around a thesis which is highly developed and goes beyond what was presented in class.</td>
<td>Does the following most of the time; identifies the subject and the content of the teaching project. Teaching project subject is centered around a thesis which is highly developed and goes beyond what was presented in class.</td>
<td>The presentation shows no subject and central thesis statement. Repeats work presented by another classmate and topic was not approved by the faculty member.</td>
</tr>
<tr>
<td><strong>Points</strong></td>
<td>9</td>
<td></td>
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</table>

| 2. Organization | Consistently does all or most of the following: Paper includes an introduction, learning theories utilized, methods of assessment of learner’s needs and styles, developmental state of the learner, model of health education utilized, assessment of the literacy of the population which is thorough and goes beyond what is covered in class. The paper includes as an appendix the Written teaching plan (example Barnstable p 408) | Does the following most of the time: Paper includes an introduction, population identifies, learning theories utilized, methods of assessment of learner’s needs and styles, developmental state of the learner, model of health education utilized, assessment of the literacy of the population which is thorough and goes beyond what is covered in class. The paper includes an Appendix to the Written teaching plan (example Barnstable p 408) | The paper shows no analytical structure including Paper is missing one or more of the important sections of an introduction, population |
| **Points** | 21 | | |

| 3. Assertions | Consistently does all or most of the following: Major points are supported by meaningful examples identifies salient arguments (reasons and claims) | Does the following most of the following: Major points are supported by meaningful examples identifies salient arguments (reasons and claims) | Paper does not show support of thesis by research and meaningful examples |
| **Points** | 21 | | |

| 4. Knowledge/Understanding | Consistently does all or most of the following: Identifies salient points related to the topic and thoughtfully analyzes and evaluates the topic | Does the following most of the time: Identifies salient points related to the topic and thoughtfully analyzes and evaluates the topic | Shows no understanding and knowledge of the topic other than what was presented in class |
| **Points** | 24 | | |

<p>| 5. Critical thinking | Consistently does all or almost all of the following: Accurately Interprets evidence, statements, graphics, questions etc. Fair-mindedly follows the evidence and presents in a logical manner. | Does the following most of the time: Accurately Interprets evidence, statements, graphics, questions etc. Fair-mindedly follows the evidence and presents in a logical manner. | Offers biased interpretation of evidence, statements, graphics, questions, information or point of view of others. Does not justify results or facts nor explain rationale. |
| <strong>Points</strong> | 24 | | |</p>
<table>
<thead>
<tr>
<th>POINTS</th>
<th>6</th>
<th>APA Style 20 points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Consistently does all or most of the following: uses APA Style guidelines to construct: Title page, format, references, appendix and editorial Style including grammar, spelling, punctuation.</td>
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<tr>
<td></td>
<td></td>
<td>Does the following most of the time for the following: uses APA Style guidelines to construct: Title page, format, references, appendix and editorial style including grammar, spelling, punctuation.</td>
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<td>Shows limited to no understanding of APA style format in construction of paper.</td>
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<td>TOTAL POINTS</td>
<td>116</td>
<td>Excellent Job</td>
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