

# **Increasing Awareness of Weight Management Resources Through Facility Specific Patient Materials**

by

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**Abstract**

Information about the importance of weight management and obesity prevention abounds in the public arena. However, individually applicable information and strategies are not always utilized, even if services are readily available. The nurse practitioner does not always have the ability to include many personalized interventions or education in the time-constrained visits in ambulatory settings. This study aims to determine the effectiveness of the use of facility specific patient materials to make patients aware of available resources.

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### **Abstract**

**Background:** Information about the importance of weight management and obesity prevention abounds in the public arena. However, individually applicable information and strategies are not always utilized, even if services are readily available. In ambulatory care settings nurse practitioners are tasked with the assessment and treatment of chief complaints and rarely have the time or means to deliver information to address underlying lifestyle issues, such as weight management, even though this is a vital part of prevention and health maintenance.

**Methods:** This non-experimental, pre-test/post-test design quantitative study set out to assess the effectiveness of a facility specific brochure in increasing awareness of the availability of 1) personal weight control counseling delivered by a nurse practitioner at the facility and 2) web-based weight management and obesity prevention resources. This was done via patient materials, which included information about the resources available at the clinic and the web addresses of web-based weight management and obesity prevention information. The data was obtained from a convenience sample of volunteers from the faculty and staff clinic at a southeastern university.

**Results:** There was a significant difference in the scores concerning the knowledge of the availability of personal weight control counseling delivered by a nurse practitioner at the facility before the delivery of the patient materials. However, there was a not a significant difference in the scores concerning information about web-based weight management, obesity prevention, and facility resources. This suggests that patient materials were significant in increasing the awareness of the information included but not in the web based resources.

## **Increasing Awareness of Weight Management Resources Through Facility Specific Patient Materials**

Obesity prevention and weight management are integral parts of a healthy lifestyle (World Health Organization, 2003). While there is an abundance of information and resources available the individual often needs personalized guidance. Nurse practitioners can help to educate patients but nurse practitioners in ambulatory clinics have numerous responsibilities and time constraints. The use of a brochure to increase awareness of these resources makes efficient use of the nurse's time and allows the patient to initiate steps towards taking charge of their own care.

### **Problem of the study**

Although a significant portion of the population is inundated with information regarding healthy lifestyles and the importance of obesity prevention, a vast number of patients may remain unaware of individually applicable interventions and available resources (Hindle & Mills, 2012). In ambulatory care settings nurses and nurse practitioners are tasked with the assessment and treatment of chief complaints and do not always have the time or means to effectively deliver information to address underlying lifestyle issues even though this is a vital part of prevention and health maintenance (McKenney, 2010).

### **Purpose of the study**

The purpose of this study was to demonstrate the effectiveness of the delivery of facility specific patient materials in increasing awareness of the availability of personal counseling delivered by a nurse at the facility and web-based weight management and obesity prevention resources.

**Research question**

The research question guiding this study was: Does the delivery of a facility specific brochure to patients increase awareness of the availability of personal counseling delivered by a nurse practitioner at the facility and web-based weight management, obesity prevention and facility resources?

**Hypotheses**

The following hypotheses were used by the researcher: The facility specific brochure will be an effective tool that increases awareness of 1) the availability of personal counseling delivered by a nurse practitioner at the facility and 2) web-based weight management, obesity prevention and facility resources.

**Review of Literature**

The global rise of obesity and its negative effects on health are well documented (World Health Organization, 2003; Perdue, Ammerman, & Fleischhacker, 2009). The treatment that is gathering consensus as being the optimal strategy to address this growing issue is prevention (Khan et al., 2009; Novelli, 2008). Preventive measures for communities and individuals to combat the increase in obesity abound (Khan, et al., 2009). For example, the Centers for Disease Control and Prevention (CDC) recommends that communities and individuals to utilize parks and other areas that support physical activity (Khan, et al., 2009). Additionally, the CDC encourages the formation of coalitions between community members and healthcare providers to “work to achieve a shared goal [obesity prevention] through coordinated use of resources, leadership and action’ (Khan, et. al., 2009). Nursing care in particular has the potential to be effective in prevention and treatment of obesity (Hindle & Mills, 2012; McKenney, 2010;

Nanchahal et al., 2009). A few studies have been conducted regarding the feasibility and outcomes of obesity-related nursing interventions (Buchholz et al. 2012; Lazarou & Kouta, 2010). However most of the literature does not directly address the nurse practitioner's role in combating obesity or promoting effective interventions. This study assesses the effectiveness of the delivery of a facility specific brochure in increasing awareness of the availability of personal counseling delivered by a nurse practitioner at the facility and web-based weight management and obesity prevention resources.

## **Methods**

### **Population, Sample and Setting**

The participants of this study were all patients of a southeastern university's faculty and staff health clinic. The clinic is staffed by a nurse practitioner and administrative assistant and is available to employees during business hours. Participants were employed by the university or were retirees (previously employed by the university). They had education levels ranging from a high school diploma/passed the General Education Development (GED) tests to multiple doctoral degrees. Inclusion criteria stipulated that the recruits have a working knowledge and comprehension of the English language, have Internet access, and be over the age of 18. A total of 16 participants agreed to participate in the study.

### **Data Collection Methods**

This study set out to assess the effectiveness of a facility specific patient materials in increasing awareness of the availability of 1) personal weight control counseling delivered by a nurse practitioner at the facility and 2) web-based weight management, obesity prevention, and facility resources. This was done via patient materials (i.e. an informational brochure, see Appendix A), which included information about the counseling services available at the clinic and the web

addresses of web-based weight management and obesity prevention information from the Centers for Disease Control and Prevention (2013). The brochure was compiled by the research team and was reviewed by a focus group to improve the quality of the design prior to use during data collection. The data collection occurred at the faculty and staff clinic at a southeastern university. The recruits were given a recruitment packet, which consisted of a consent form (Appendix B) and pre-test (Appendix C) upon arrival at the clinic. If they agreed to participate in the study, they were given the informational brochure upon the completion of the pre-test. The post-test (identical to the pre-test) was delivered to the subject via email. An optional follow-up appointment was available at the faculty and staff clinic at the southeastern university.

### **Research Design**

This study utilized a non-experimental, pre-test/post-test quantitative study design. The study was done over the course of the initial visit in about five to 15 minutes at the faculty and staff clinic at a southeastern university. The subjects were asked to complete a post-test by email or postal mail, which took five to 15 minutes.

### **Results**

The participants completed the pre-tests and post-test and their responses were de-identified and assigned numbers for data organization. Out of the 16 participants recruited for the study, 5 were excluded because they did not complete the post-test. The remaining participants ( $n = 11$ ) consisted of both females ( $n = 9$ ) and males ( $n = 2$ ) ranging from ages 25 to 64 years old. The highest level of education of the participants varied, ranging from high school/GED completion ( $n = 1$ ), Bachelor's Degrees ( $n = 6$ ), Master's degrees ( $n = 2$ ), and Doctoral degrees ( $n = 2$ ).

The instrument contained questions that were directly answered in the brochure and also questions that would only be available through web-based resources. Granting a point for each



correct answer and a zero for each incorrect answer and summing the result produced two scores for the pre-test/post-test. One question (question number 8, see Appendix B) in the pre-test/post-test was omitted from the results because of the ambiguity of the correct answer on the sites provided in the brochure. The data collected from the pre-test/post-tests was compiled and analyzed using Microsoft Excel 2008. This study was conducted using a non-experimental, single group, quantitative pre-test/post-test design.

A one-tailed, paired samples t-test ( $p \leq 0.10$ ) was conducted to compare the knowledge of the availability of personal weight control counseling delivered by a nurse practitioner at the facility before and after the delivery of the patient materials. There was a significant difference in the scores before the delivery of the patient materials ( $M=1.36$ ;  $SD 0.81$ ) and after the delivery of the patient materials ( $M=1.82$ ;  $SD 0.40$ );  $t(10) = 1.61$ ,  $p = 0.0688$ . These findings suggest that the delivery of patient materials was effective in conveying information about the availability of personal weight control counseling delivered by a nurse practitioner at the facility for this population.

Another one-tailed, paired samples t-test ( $p \leq 0.10$ ) was conducted to compare the knowledge of web-based weight management, obesity prevention, and facility resources before and after the delivery of the patient material. There was not a significant difference in the scores before the delivery of the patient materials before ( $M = 6.36$ ;  $SD = 1.63$ ) and after the delivery of the patient materials ( $M = 6.73$ ;  $SD = 1.01$ );  $t(10) = 1.00$ ,  $p = 0.1704$ . These findings suggest that the delivery of patient materials was not effective in conveying information about web-based weight management, obesity prevention, and facility resources for this population.

### **Limitations**

The pre-test/post-test instrument was designed by the researcher and has not been evaluated for validity and reliability outside of this study. Most of the limitations of this study are related to the fact that the participants are all members of a single university faculty clinic. All the participants have access to the clinic and are educated individuals (with at least a high school diploma/GED). These factors severely diminish ability of the results to be inferred to broader or more diverse populations. Even if this were not the case, the sample size was too small to justify the use of inferential statistics or multivariate analysis. Additionally, the effectiveness of this brochure would only apply to literate, English speaking individuals.

### **Discussion**

The availability and accessibility of healthcare programs and services is futile if the target population is not aware of the services provided. Patient materials, like the brochure included in this study, should be composed of the information that the healthcare provider needs to convey. The results of this study demonstrate the importance of providing clear information about the nature and availability of services directly to the patient. On this particular brochure, directions on how to find information about the services may not be effective. Therefore, prior to future use of this brochure in this population, revision is necessary.

Nurses and nurse practitioners are often tasked with ensuring that patients are aware of the importance of lifestyle decisions and the availability of services that the patient can access to obtain guidance. Printed materials may facilitate this task and therefore improve patient health. In light of this, more nursing research should be conducted to ascertain the effectiveness of patient materials and teaching strategies.

### References

- Buchholz, S., Wilbur, J., Miskovich, L., & Gerard, P. (2012). An office-based health promotion intervention for overweight and obese uninsured adults: A feasibility study. *Journal Of Cardiovascular Nursing, 27*(1), 68-75. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2011419633&site=ehost-live>.
- Centers for Disease Control and Prevention. (2013). Retrieved from <http://www.cdc.gov/>
- Hindle, L., & Mills, S. (2012). Obesity: self-care and illness prevention. *Practice Nursing, 23*(3), 130-134. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2011518418&site=ehost-live>.
- Khan, L., Sobush, K., Keener, D., Goodman, K., Lowry, A., Kakietek, J., & Zaro, S. (2009). Recommended community strategies and measurements to prevent obesity in the United States. *MMWR Recommendations & Reports, 58*(RR-7), 1-29. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2010423435&site=ehost-live>.
- Lazarou, C., & Kouta, C. (2010). The role of nurses in the prevention and management of obesity. *British Journal Of Nursing, 19*(10), 641-647. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2010702237&site=ehost-live>.

- McKenney, S. (2010). The ambulatory care nurse's role in reducing obesity. *AAACN Viewpoint*, 32(5), 1. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2010833313&site=ehost-live>.
- Nanchahal, K., Townsend, J., Letley, L., Haslam, D., Wellings, K., & Haines, A. (2009). Weight-management interventions in primary care: A pilot randomised controlled trial. *British Journal Of General Practice*, 59(562), e157-66. doi:10.3399/bjgp09X420617.
- Novelli, W. (2008). Transforming the healthcare system: A focus on prevention. *Healthcare Financial Management*, 62(4), 94-99. Retrieved from <http://search.ebscohost.com.elib.uah.edu/login.aspx?direct=true&db=rzh&AN=2009895070&site=ehost-live>.
- Perdue, W., Ammerman, A., & Fleischhacker, S. (2009). Assessing competencies for obesity prevention and control. *Journal Of Law, Medicine & Ethics*, 37(2), 37-44. doi:10.1111/j.1748-720X.2009.00390.x.
- World Health Organization (2003). *Controlling the global obesity epidemic*. Retrieved from <http://www.who.int/nutrition/topics/obesity/en/>.

## Appendix A

### It's never too soon to start.

Change isn't easy but that does not make it impossible.

The UAH Faculty and Staff Clinic is here to provide you with access to health education and counseling.

The Nurse Practitioners who work here are interested in helping you design and achieve your health goals.

Patients are seen:

Mon: 7:30 am - 11:30 am  
 Tue: 7:30 am - 4:30 pm  
 Wed: 7:30 am - 11:30 am  
 Thu: 7:30 am - 4:30 pm  
 Fri: 7:30 am - 11:30 am

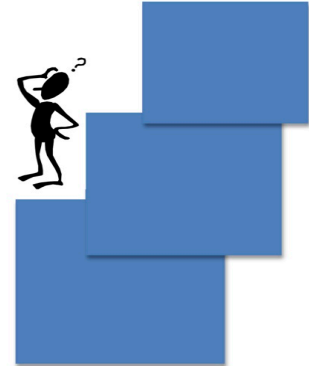
Office is open:

Mon: 7:30 am - 4:00 pm  
 Tue: 7:30 am - 4:30 pm  
 Wed: 7:30 am - 4:00 pm  
 Thu: 7:30 am - 4:30 pm  
 Fri: 7:30 am - 3:00 pm

Schedule your appointment today!

## Weighty Questions

The First Step In Taking Charge of Your Health



### Did you know?

You can receive personalized weight management advice right here at the UAH Faculty and Staff Clinic!

"Providing quality healthcare in a respectful, warm, open environment where patients come first."  
 - NP, Louise O'Keefe

The UAH Faculty and Staff Clinic can help you to:

- Find out about your current health
- Get personal counseling
- Stay on track with long term monitoring

### Where do I start?

You already know that one of the best ways to keep yourself healthy is to actively manage your weight. With all of the information available it can be hard to figure out what is right for you.

You can schedule an appointment to receive personal counseling to help you find out how to start out your weight management on the right foot.

#### Support and Advice

Should I be concerned about my current weight? What is my optimal weight? What is my BMI? What is a BMI?

If you want to know the answer to any of these questions, be sure to **schedule an appointment!**

At the appointment, the nurse practitioner will assess your current weight status and work with you to develop a plan for weight management.

It's hard to get started managing your weight and it's even harder to keep it up. That's why you have the option of scheduling weekly or monthly follow-up appointments to help you stay on track!

### What can I do today?

If you have a particularly busy schedule and making another appointment isn't possible, be sure to take a minute and click on over to these websites:

[www.cdc.gov/healthyweight](http://www.cdc.gov/healthyweight)

[www.cdc.gov/obesity](http://www.cdc.gov/obesity)

### Contact Us

**UAH Faculty and Staff Clinic**  
 301 Sparkman Drive  
 Spragins Hall 127D  
 Phone: 256.824.2100  
 Fax: 256.824.4635

[www.uah.edu/clinic](http://www.uah.edu/clinic)

**Appendix B**

Pre-Test/Post-Test

1. Gender:     **M**     **F**

2. Age:         **18-24**         **25-34**         **35-44**         **45-64**         **65+**

3. Education:   **Some High School**             **High School Diploma/GED**  
                   **Some College**                 **Associate’s Degree**  
                   **Bachelor’s Degree**         **Master’s Degree**         **Ph.D. +**

4. Which service(s) is/are available at the UAH Faculty and Staff Clinic? (Circle all that apply.)

**TB Testing**   **Weight Management Counseling**         **Breathing Treatments**  
**Flu shots**    **Physical Exams/Eye Exams**                     **Cholesterol Checks**  
**X-Rays**       **Chronic Disease Management**                   **Blood Panels**

5. Which Professional(s) is/are able to conduct weight management counseling? (Circle all that apply.)

**Doctors (M.D. & D.O.)**             **Nurses (R.N.)**             **Nurse Practitioners (C.R.N.P.)**  
**Registered Dietitians (R.D.)**

6. How many extra calories does it take to gain one pound?

**1500**         **2500**         **3500**         **15000**         **25000**         **35000**

7. It is best to lose more than two pounds per week when losing weight.    **True**         **False**

8. It is best to exercise for two hours or more every day.                     **True**         **False**

### Appendix C

Consent Form:

You are invited to participate in a research study about patient information materials. This study is designed to help us to better understand how to best provide information to the members of this clinic.

The primary investigator is Julie Vincent, an Honor student from the College of Nursing at the University of Alabama in Huntsville. Participants must be over the age of 18.

**PROCEDURE TO BE FOLLOWED IN THE STUDY:** Once written consent is given, you will be asked to complete a pre-test (8 “circle-your-answer” questions), look at an informational brochure, and complete a post-test (8 “circle-your-answer” questions), by email, postal mail or during a follow-up visit to the clinic. This will take approximately 15-30 minutes total. If you elect to participate in a follow up visit, it will take additional time (20-30 minutes).

**DISCOMFORTS AND RISKS FROM PARTICIPATING IN THIS STUDY:** There are no expected risks associated with your participation.

**EXPECTED BENEFITS:** Personal benefits: The opportunity to learn more about health and the Faculty and Staff Clinic.

**CONFIDENTIALITY OF RESULTS:** Participant numbers will be used to record your data, and these numbers will be made available only to those researchers directly involved with this study, thereby ensuring strict confidentiality. This consent form will be destroyed within 12 months. The data from your session will only be released to those individuals who are directly involved in the research and only using your participant number.

**FREEDOM TO WITHDRAW:** You are free to withdraw from the study at any time. You will not be penalized because of withdrawal in any form. Investigators reserve the right to remove any participant from the session without regard to the participant’s consent.

**CONTACT INFORMATION:** If any questions should arise about this study or your rights as a participant, you may contact the Principal Investigator at any point in the research process. You may contact Julie Vincent, at [REDACTED] or at jav0004@uah.edu. If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Office of the IRB (IRB) at 256.824.6101 or email Dr. Pam O’Neal at irb.@uah.edu.

If you agree to participate in our research please sign and date below.

This study was approved by the Institutional Review Board at UAH and will expire in one year from May 12, 2013.

Name (Please Print)	Signature	Date
Email: _____	OR	Mailing Address _____
		_____