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A Survey of California Nurse Practitioners' Health Practices and Counseling Habits

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**SAN JOSE STATE UNIVERSITY
SCHOOL OF NURSING**

**MASTER'S PROGRAM PROJECT OPTION (PLAN B)
PROJECT SIGNATURE FORM**

STUDENT NAME Jessica Malone

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Habits

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The project and manuscript have been successfully completed and meet the standards of the School of Nursing at San Jose State University. The project demonstrates the application of professional knowledge, clinical expertise, and scholarly thinking. An abstract of the project and two copies of the manuscript are attached.

Christian Hooper

ADVISOR'S SIGNATURE

May 18, 2005

DATE

ADVISOR'S SIGNATURE

DATE

Please submit this form to the Graduate Coordinator. Attach abstract, two copies of the manuscript, and documentation of submission to the journal (i.e., postal receipt).

Abstract

Morbidity and mortality due to obesity continues to rise in the United States despite well known Healthy People 2010 and American College of Sports Medicine guidelines on physical activity. In the U.S. today, more than 60 percent of Americans aged 20 years and older are overweight (Hedley et al., 2004). This study investigated the exercise practices of California nurse practitioners (NPs), how their practices compare to recommended guidelines, and to what extent California NPs prescribe aerobic exercise and strength training to their clients. The California Nurse Practitioners Physical Activity Questionnaire was self-administered at the annual 2005 California Association for Nurse Practitioners (CANP) conference. The number of participants was 130 California NPs. The study tool assessed five areas. The results show although most NPs do participate in moderate (50.8%) aerobic activity at least 3-5 days a week (53.8%) and strength training at least 1-2 days a week (30.8%), only 16.2% of NPs devote 6-7 days a week to aerobic exercise. The information gathered from the research study can be utilized to implement further interventions targeting the obesity problem, which will contribute a more positive outcome for the overall population.

Introduction

In the U.S. today, more than 60 percent of Americans aged 20 years and older are overweight (Hedley et al., 2004). Health professionals describe “overweight” as an excess amount of body weight that includes muscle, bone, fat, and water (Hedley et al., 2004). Being obese is different from being overweight. Obesity is associated with numerous health concerns: hypertension, dyslipidemia, type 2 diabetes, coronary heart disease, stroke, and some cancers (Raebel et al., 2004). Associated with these chronic diseases is the economic cost of obesity in the U.S. that in 2000 was approximated at \$117 billion (Raebel et al., 2004).

Research investigating levels of obesity has been performed by the American College of Sports Medicine (ACSM), Centers for Disease Control and Prevention (CDC), the National Health and Nutrition Examination Survey (NHANES), and varying individual researchers and groups. Healthy People 2010 identifies obesity as an important public health issue in the U.S. (Must et al., 1999 & Healthy People 2010, 2000). This burden is not trivial and manifests itself in premature death and disability, in health care costs, in lost productivity, and in social stigmatization.

Obesity has been identified as an epidemic in the U.S. for more than two decades and yet the numbers of overweight and obese adults continues to grow (Must et al., 1999). The obesity epidemic has spurred numerous research efforts focused on weight loss strategies including dietary alterations, exercise regimens, and surgical interventions. Interventions for obesity are leading to an increase in gastric bypass surgery (even in children), failed diets that focus on liquid food or high-protein foods, or total body “makeovers” (i.e. liposuction, surgical implants, or other surgical means).

Early research in physical activity studied physical activity performed at work (Morris, Heady, Raffle, Roberts, & Parks, 1953). Current research has shifted towards assessment of

leisure-time physical activity and is often assumed to be the best representation of physical activity in a population. The leisure activities include a particular sport, gardening, bathing, shopping, running, mall walking, and many others.

Another major problem is that regular physical exercise requires more time and effort than diet modifications and taking medications. People often perceive it as a drastic and difficult change in their lifestyle (Di Loreto et al., 2003). Although primary care practitioners can play an important role in helping their clients overcome some of the barriers, it is known that providers own personal habits may affect their ability to influence health-promoting lifestyles in those for whom they care (Frank, Breyan, & Elon, 2000; Abramson, Stein, Schaufele, Frates, & Rogan, 2000).

A popular area of ongoing research is focused on understanding the health counseling strategies, techniques and barriers that influence the effectiveness of healthy lifestyle promotion provided in primary care settings. Through studies aimed at identifying physicians who are more likely to counsel their clients regarding exercise, it is becoming increasingly clear that doctors who exercise are more likely to discuss healthy personal habits with their clients (Frank et al., 2000). Another study published by Abramson et al. (2000) studied a random sample of 1,200 primary care physicians regarding their personal exercise habits and their counseling practices. The results showed that the physicians who performed aerobic exercise (odds ratio [OR] 5.72; 95% confidence interval [CI] 2.41-13.54; $p < 0.0005$) and strength training (OR 4.55; 95% CI 2.61-7.91; $p < 0.0005$) were more likely to counsel their clients regarding physical activity (Abramson et al., 2000).

Purpose of the Study

While obesity is associated with an increased risk of morbidity and mortality and has been studied heavily, very little research investigates the exercise-related health practices of NPs

and whether NPs exercise counseling practices are related to their personal exercise behaviors. Because NPs play an important role in client education and health promotion it is important to begin to explore potential barriers to providing effective care. The purpose of this study was to determine the exercise practices of California NPs, how their practices compare to recommended guidelines, and to what extent California NPs prescribe aerobic exercise and strength training to their clients.

Research Question

The research questions for this study were:

1. What are the exercise practices of California NPs?
2. To what degree do California NPs prescribe aerobic exercise and strength training to their clients?
3. How do NPs physical activity practices compare to guidelines recommended by the ACSM?

Nurse practitioner was defined according to the California Association for Nurse Practitioners (CANP) as follows: “A nurse practitioner (NP) is a registered nurse with advanced academic and clinical experience, which enables him or her to diagnose and manage most common and many chronic illnesses, either independently or as part of a health care team.” (<http://www.canpweb.org>)

The ACSM issued a recommendation for physical activity to achieve health promotion and disease prevention. The recommendation indicates a shift in the exercise – fitness paradigm to emphasize the relationship between physical activity and health (Walsh et al., 1999). Some NPs may place a high priority on providing health maintenance education to their clients, but little information exists as to whether NPs are maintaining their role as health exemplars to their clients. For the purpose of this study, “health” was defined according to the World Health

Organization (WHO) as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Haughey et al. (1992, p.203) states NPs have “the credibility and the power to promote changes in health attitudes and behaviors of the public, yet they seem reluctant to take on this role”.

For this study, exercise was defined according to the ACMS, guidelines which state “Every U.S. adult should accumulate 30 minutes or more of moderate - intensity physical activity on most, and preferably all, days of the week” (Morrow, Krzewinski-Malone, Jackson, Bungum & FitzGerald, 2004, p. 232 & Pate et al., 1995, p. 402). The 30 minutes could be incremental throughout the day (i.e. period of at least 10 minutes) or accumulated in one period of activity. For the purpose of this study, light intensity was described as walking 1 - 2 mph, leisurely cycling less than 5 mph, swimming slowly, and playing golf with an electric cart. Moderate intensity was described as walking 3 – 4 mph, cycling 6 – 10 mph, swimming moderate pace, and playing golf with a pull cart. Heavy intensity was described as jogging slower than 10 min / mile, cycling 11 – 14 mph, swimming fast, and playing golf carrying a bag. Finally, vigorous intensity was described as faster than 10 min / mile, cycling greater than 15 mph, and swimming vigorously.

ACSM (ACSM, 1998) states individuals of all ages can benefit from strength training exercises. According to ACSM (ACSM, 2003), “strength exercises should be done every other day with three sets of eight to 12 repetitions for each exercise”. Strength training can have a significant impact on the maintenance of independence in any age. Regular activity helps prevent and/or postpone the age associated declines in balance and coordination that are a major risk factor for falls. Examples of strength training include weight lifting, going from sitting to standing, or lifting a heavy object such as a soup can or bag of rice.

Literature Review

Research on the topic of exercise and health care providers was obtained via PubMed, CINAHL, and OVID using key words “exercise”, “advance practice nurse”, “physicians”, “health promotion”, “practice guidelines”, “health care beliefs”, “counseling”, and “compliance”. The research available on exercise and obesity is extensive.

Numerous research studies have identified variables such as sex, practice types, and age that differentiate who provides counseling about exercise and dietary habits compared to those who do not (Frank, Wright, Serdula, Elon, & Baldwin, 2002). The Women Physicians’ Health Study (WPHS) found that 49% exercised enough to meet the ACSM recommendations; these exercising physicians were also more likely to counsel clients on personal exercise habits (Frank, Bhat, & Elon, 2003). Another study done by Petrella et al. (2003) compared usual – care exercise counseling to an exercise prescription instrument (i.e., Step Test Exercise Prescription [STEP]) for 241 healthy clients. The study found that the subjects completed 80% of available exercise opportunities in the STEP group (Petrella et al., 2003).

Although past research has shown that physicians’ personal health habits are important indicators of their client counseling practices, exercise-related practices of NPs have not previously been studied enough to allow many meaningful conclusions to be drawn. One specific research article focusing on physician behavior by Wells et al. (1984) titled, “Do Physicians Preach What They Practice?” poses an important question to NPs. This study assessed physicians’ motivation to counsel clients about smoking and investigated barriers such as perceived skills in counseling, and perceived costs and benefits to the physician of counseling. The results showed at least 85% of physicians identified smoking as dangerous and physicians recognized counseling as important (Wells, Lewis, Leake, & Ware, 1984). It also showed that the physicians with healthy lifestyles (those who exercised and were non – smokers) had a higher

likelihood of counseling their clients than the physicians who smoked and did not exercise (Wells et al., 1984).

Little is known about the exercise-related health practices of NPs or of their patterns of prescribing physical activity. In the past few years, few articles were published on health styles of NPs. Most of the research published focuses on smoking, preventative screening, regular breast self-examinations, dietary habits, and specific health behaviors (Haughey, Kuhn, Dittmar, & Wu, 1992). An article published by James Blackwell (2004) studied the health practices (or health styles), beliefs, and behaviors of NPs. This article concluded that personal health habits of general practitioners do influence the health counseling and healthy practice habits of their clients (Blackwell, 2004). Another article found that NPs who practice healthy behaviors are more likely to exhibit positive health beliefs and attitudes to their clients (McKenna et al., 1998). Finally, a study at the University of Texas-Health Science Center examined the health promotion attitudes and practices of Texas NPs (Reeve, Byrd & Quill, 2004). This study found that although overall attitudes towards health promotion are adequate, more improvement is needed in certain health promotion practices such as exercise, breast cancer screening, and disease prevention (Reeve et al., 2004). Obesity and physical inactivity have been major concerns in the past, and they continue to pose a major risk to the U.S. population today. If the doctors' physical fitness levels and health promotion outcomes are positively correlated, what are these outcomes like for NPs?

Theoretical Framework

There are multiple ways the term "health" can be defined in current literature. Some researchers believe there is a gap between the way theoretical concepts of health are viewed and the way they are applied in research (Blackwell, 2004; Reynolds, 1988). In this study the Health Promotion Model (HPM) was utilized (Pender, Murdaugh & Parsons, 2002).

Pender's background in nursing, human development, experimental psychology, and education led her to use a holistic nursing perspective, social psychology, and a learning theory as the foundations for the HPM. The HPM has served as a framework for research aimed at predicting overall health-promotion lifestyles and specific behaviors such as exercise and use of hearing protection (McCullagh, Lusk, & Ronis, 2002; Pender et al., 2002), early detection of breast cancer (Oliver, Sanchez, Suarez, Velez & Arroyo, 2002), and enhancement of medication compliance (Lannon, 1997). The HPM, well established in social – cognitive, nursing perspective, and public health theories, explains the comprehensive nature of persons interacting with their interpersonal and physical environments as they pursue health (McCullagh et al., 2002).

The HPM includes three groups of influencing factors: (a) individual characteristics and experiences consisting of prior related behavior and personal factors (e.g., biological, psychological, sociocultural); (b) behavior – specific cognitions and affect (e.g., perceived benefits of action; perceived barriers to action; perceived self – efficacy; activity – related affect; interpersonal influences from family, peers, and providers; situational influences); and (c) immediate behavioral contingencies (e.g., commitment to a plan of action, response to immediate competing demands, and preferences) while health - promoting behavior is the desired outcome (Pender et al., 2002).

Obesity is a health problem that can be effectively investigated using the HPM. The HPM can provide an integrated point of view for NPs that illustrates the range of behavioral influences to be addressed in interventions in order to increase health-promoting behaviors. This model was utilized to facilitate this research by investigating factors that can influence California NPs physical activity habits and subsequent counseling practices.

Methodology

Research Design

A quantitative survey design was used to investigate the physical activity-related health practices of California NPs. A four page self-administered questionnaire, called the California Nurse Practitioners Physical Activity Questionnaire, derived from a questionnaire provided by Spaulding Rehabilitation Hospital Exercise Study was utilized to gather data. There have been no formal reliability and/or validity studies performed using this questionnaire however a study published by Abramson et al. (2000) studied a random sample of 1,200 primary care physicians regarding their personal exercise habits and their counseling practices utilizing this assessment tool. The questionnaire contains 40 questions and took about 10 minutes to complete. The study tool assessed five areas: demographic data (nursing specialty, age, sex, practice setting), aerobic exercise practices, strength training practices and nurse practitioners' exercise counseling practices regarding aerobic and strength training. NPs were asked to indicate their counseling practices for "routine client check up" visits. In the sections on aerobic exercise and strength training information about frequency, duration, and intensity were obtained.

Subjects and Methods

The sample population of NPs surveyed for this research study was obtained by contacting CANP for permission to distribute a self - administered questionnaire at the CANP Annual Conference on March 10-13, 2005. Permission from San Jose State University Investigational Review Board (SJSU-IRB) was acquired prior to enrolling participants in this study. All participants attending the CANP Annual Conference were eligible to complete the self-administered questionnaire. Only those completed surveys received from California NPs currently practicing were included in the data analysis.

A non-probability convenience sample of readily available participants was utilized to gather data for this investigation. The setting for the research study was the annual 2005 CANP meeting in Northern California. There were 160 distributed questionnaires and 130 questionnaires were returned completed to the researcher. Participation was voluntary and contingent upon reading the informed consent and completion of the questionnaire. No foreseeable risk was involved with study participation. The self-administered California Nurse Practitioners Physical Activity Questionnaire, an informed consent, and a cover letter were handed out at a booth in the exhibit hall of the annual conference. After reading the consent and completing the questionnaire, the participants left the questionnaire in a locked box at the booth. The returned questionnaires are seen only by the researcher and the statistician. The questionnaires were kept in a locked box at all times when not in use by the investigators.

The subjects were informed of potential benefit by contributing to research that investigates whether or not NPs disclosure of healthy practices and exercise-related behaviors improve their credibility and ability to motivate clients when it comes to exercise and the pursuit of health-promoting habits. The subjects were not identified in the research findings. The research subjects were not compensated for their participation in the study. The returned questionnaires of the participants were kept in a locked file cabinet when not in use by the investigator. All information obtained for this study and all aspects, except the statistical analysis, of the research process occurred in the researcher's home in Northern California. The statistical analysis was complete by the San Jose State University Statistics Department at the office located on campus.

Results

Demographics

The primary demographic data is depicted in Table 1. A total of 160 questionnaires were distributed, of which 130 were returned and found to be complete and eligible for inclusion in the data analysis. The age of the nurses ranges from 26 to 71 years of age. The study participants were nearly all females with almost half (48.3%) being over the age of 50 years. The majority (81.5%) were master's degree prepared with more than half of the total group practicing in one of the primary care specialties (Family Practice, Internal Medicine, OB/GYN). Seventy percent of the NP's have been in practice less than 10 years with two-thirds employed in larger practice settings (group/HMO/hospital). More than 75% spend at least half of their time in direct client care activities although nearly a third of the entire group has less than 25% primary care clients in their practice.

Of the California NPs who reported doing aerobic exercise, half of respondents (50.8%) participated in moderate intensity aerobic activity on a regular basis. Among the 130 California NPs in the study, 53.8% reported spending 3 – 5 days a week participating in aerobic activity; less than a fourth participated in 30 minutes or less per session; however, 36.2% reported participating in 31 - 45 minutes per session. The intensity of aerobic activity was reported as light (8.5%), moderate (50.8%), heavy (23.1%), and vigorous (8.5%). The top five reasons (general health maintenance, cardiovascular prevention, psychological benefit, weight control, and osteoporosis prevention) to perform aerobic activity are listed in Table 2 along with the barriers to aerobic activity, "not enough time" (72.3%) reported as the number one barrier for NPs.

When the focus is turned to NPs counseling practices regarding aerobic activity, over half (54.6%) of NPs surveyed indicated that they counsel their clients to engage in aerobic activity.

Most NPs (84.6%) recommend 3 – 5 days per week and 63.8% recommend 30 minutes or less per exercise session. NPs were most likely to verbally counsel clients (96.2%), 13.8% also report counseling by demonstration, and 11.5% counsel by pamphlet. The most commonly cited barrier (67.7%) to counseling clients regarding aerobic exercise was “not enough time”. Approximately half of NPs seek the advice of a specialist for assistance with their client’s aerobic conditioning and reported referring to a physical therapist 72.2% of the time. More than 80% of NPs counsel their clients on aerobic activity for prevention or treatment of cardiovascular disease. Overall, 86.4% of NPs believe that 40% or less of clients follow their recommendations for aerobic activity.

Among the 130 California NPs in the study group 58.9% report participating in strength training (Table 3). Over 55.3% of the NPs reported spending 3 – 5 days or less per week participating in some type of strength training exercise. Most (13.8%) spent 30 minutes or less performing strength training exercise with 57.8% choosing to use free weights. The most common area of the body to focus on was the upper extremities (90.7%). Data regarding the five most common motivating factors for participating in strength training are reported in Table 3. The most common barrier reported by the entire study group for not engaging in regular strength training activities was “not enough time” (64.5%). Others barriers included lack of motivation (37.7%) and others (9.2%).

When the focus is turned to NPs counseling practices regarding strength training, the data shows that during a routine client check-up 61.6% of NPs counsel their clients less than 1 out of 5 encounters. Overall, when strength training counseling was performed, 54.6% of respondents spent 2 minutes or less on the topic. During the counseling process for strength training, 62.3% of NPs recommend 3-5 days per week of activity with almost all practitioners (69.2%) prescribing sessions lasting 30 minutes or less. When asked about perceived barriers to client

counseling about strength training, study participants most commonly cited “not enough time” (56.9%) and “lack of motivation” (34.6%).

Discussion

The data indicate that the majority of NP perform aerobic activity (usually at a moderate level or greater) 3 – 5 days per week and strength training at least 1-2 days per week. However, only 16.2% and 2.3% of NPs devote 6 - 7 days a week to aerobic activity and to strength training, respectively. The ACSM and WHO guidelines state “every U.S. adult should accumulate 30 minutes or more of moderate - intensity physical activity on most, and preferably all, days of the week”. The study showed that NPs (36.2%) devote between 31 – 45 minutes per session and 33% are spending greater than 45 minutes per session for aerobic activity. ACSM and other organizations emphasize 30 minutes or greater every day. The data indicate that NPs do follow ACSM guidelines with respect to the length of individual activity sessions, but not with respect to the number of days per week spent exercising.

“Lack of time” has been indicated as the primary barrier in other studies on physical activity counseling (Stutts, 2002 & Neuberger et al., 1994). The current study showed similar results as “not enough time” (67.7%) was cited as the primary barrier. Lack of motivation (36.9%) and being physically unable to participate (15.4%) were also commonly reported; limited NP knowledge of the benefits of physical activity / strength training, lack of training in physical activity counseling, and inadequate knowledge of effective referral were cited by less than 5% of study participants as additional barriers to achieving the goals to the obesity epidemic demonstrated in this study.

This study showed that NPs counsel their clients about aerobic exercise greater than 60% of the time on a routine client check – up. However, 61.6% of NPs counsel their clients less than 20% of the time regarding strength training. Majority of NPs counsel their clients; however, the

frequency to perform physical activity is not according to the ACMS guidelines of “6-7 days a week” and recommend less than 30 minutes rather than “30 minutes or more per session”. The data shows NPs are not counseling according to the guidelines, although NPs are “practicing what they preach”. According to this data, NPs are better at counseling their clients regarding aerobic exercise rather than strength training.

This study was limited by several factors. The first limitation of the survey was that the self-reported information returned may be skewed because the participants were the phenomenon under investigation. This may effect how honest the participants are in answering the questionnaire. Studies show that some possibility of bias exists due to the use of self-reported measures (Frank et al., 2002). The second limitation was that those NPs who participated may have had a better attitude and a greater intention to follow guidelines for physical activity than those who did not respond to the survey. As the survey tool was self-administered, participants were able to inadvertently mark more than one answer for a question or even omit responses in a series of related questions; therefore not all frequencies reported equaled 100% for the study group.

Implications for Practice

Ongoing research and evidence of relationships among physical activity, diet, and health practices / barriers is needed to slow down the obesity epidemic. With the prevalence of people who get no daily exercise at all, and the rise of obesity in the U.S., it is important to counsel that just small increases in physical activity, as little as 30 minutes a day, can improve health. Because many Americans already lead sedentary lifestyles, daily exercise, (opposed to 3-5 days a week) may be perceived as an unattainable goal. Building up to daily moderate intensity physical activity may further reduce the risk of fatal diseases over time and will provide additional health benefits. If achieving 30 minutes per day seems impractical, researchers

recommend focusing shorter bursts of activity such as three 10 minute walks a day (Frank et al., 2000; Abramson et al., 2000; Petrella et al., 2003).

The CDC and the ACSM have issued a recommendation for physical activity to achieve health promotion and disease prevention. This research study may signal a shift in the exercise-fitness paradigm to emphasize the relationship between physical exercise and health promotion. Through the promotion of physical exercise, NPs and primary care providers have an opportunity to significantly impact clients and the general health of the public. In addition, this research can facilitate practitioners in identifying barriers to implementing further interventions targeting the obesity problem.

Demographics (Table 1)			
		N	%*
Sex			
	Female	119	91.5
	Male	10	7.7
Age (years)			
	25-30	5	4.0
	31-40	17	13.2
	41-50	45	34.8
	51-60	52	40.4
	> 60	10	7.9
Specialty			
	Family Practice	58	44.6
	Other	29	22.3
	OB/GYN	12	9.2
	Internal Medicine	10	7.7
	Geriatrics	8	6.2
	Acute Care	7	5.4
	Pediatrics	6	4.6
Percent primary care			
	0-25	40	31.5
	26-50	18	14.2
	51-75	9	7.1
	76-100	60	47.2
Time in practice (years)			
	5 or less	50	38.5
	6-10	41	31.5
	11-15	9	6.9
	> 15	30	23.1

* May not equal 100% as participants were permitted to choose multiple answers or omit responses

Cardiovascular / Aerobic Fitness (Table 2)			
Personal Habits		Counseling Practices	
N = number (%)		N = number (%)	
Participate in aerobic activity on regular basis		Percent do you counsel clients	
Yes	111 (85.4)	20 or less	27 (20.8)
No	19 (14.6)	21 - 40	15 (11.5)
		41 - 60	17 (13.1)
		> 60	71 (54.6)
Days per week devoted to aerobic activity		Days per week do you recommend	
1 - 2	24 (18.5)	1 - 2	2 (1.5)
3 - 5	70 (53.8)	3 - 5	110 (84.6)
6 - 7	21 (16.2)	6 - 7	14 (10.8)
Minutes spent doing aerobic activity		Minutes recommended to clients per session	
< 30 minutes	25 (19.2)	< 30 minutes	83 (63.8)
31 - 45 minutes	47 (36.2)	31 - 45 minutes	37 (28.5)
> 45 minutes	43 (33.0)	> 45 minutes	6 (4.6)
Personal reasons to perform aerobic activity ¹		Reasons to counsel clients about aerobic exercise ¹	
General health maintenance	102 (78.5)	Cardiovascular disease prevention	108 (83.1)
Cardiovascular disease prevention	98 (75.4)	Weight control	101 (77.7)
Psychological benefit	88 (67.7)	General health maintenance	96 (73.8)
Weight control	76 (58.5)	Psychological benefit	95 (73.1)
Osteoporosis prevention	72 (55.4)	Diabetes prevention/treatment	84 (64.6)
		Minutes devoted per visit for counseling	
¹ Five most common responses listed in order of descending frequency		< 1	8 (6.2)
		1 - 2	54 (41.5)
		3 - 5	50 (38.5)
		> 6	14 (10.8)

Strength Training – Personal Habits and Counseling Practices (Table 3)			
Personal Habits		Counseling Practices	
N = number (%)		N = number (%)	
Participate in strength training on regular basis		Percent do you counsel clients	
Yes	76 (58.9)	20 or less	80 (61.6)
No	53 (41.1)	21 - 40	19 (14.6)
		41 - 60	12 (9.2)
		> 60	16 (12.3)
Days per week devoted to strength training		Days per week recommended to clients	
1 - 2	40 (30.8)	1 - 2	15 (11.5)
3 - 5	32 (24.5)	3 - 5	81 (62.3)
6 - 7	3 (2.3)	6 - 7	3 (2.3)
Minutes spent doing strength training		Minutes recommended to clients per session	
< 30 minutes	57 (13.8)	< 30 minutes	90 (69.2)
31 - 45 minutes	9 (6.9)	31 - 45 minutes	7 (5.4)
> 45 minutes	9 (8.9)	> 45 minutes	2 (1.5)
Personal reasons to perform strength training¹		Reasons to counsel clients about strength training¹	
General health maintenance	45 (34.6)	Musculoskeletal injury prevention	64 (49.2)
Physical appearance	42 (32.3)	Osteoporosis prevention	60 (46.2)
Osteoporosis prevention	39 (30)	General health maintenance	56 (43.1)
Musculoskeletal injury prevention	36 (27.7)	Weight control	54 (41.5)
Weight control	35 (26.9)	Cardiovascular disease prevention	51 (39.2)
¹ Five most common responses listed in order of descending frequency		Minutes devoted per visit for counseling	
		< 1	25 (19.2)
		1 - 2	46 (35.4)
		3 - 5	24 (18.5)
		> 6	8 (6.2)

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Phyllis Connolly

From: [REDACTED]
Sent: Monday, May 23, 2005 11:55 AM
To: Phyllis Connolly; Phyllis Connolly
Cc: Christine Hooper
Subject: Manuscript submission

Here is a copy of them recieveing my manuscript. I can't wait to hear from them in further detail.

Thanks
Jessica Malone

-----Original Message-----

From: Journal [REDACTED]
To: [REDACTED]
Cc: Charon Pierson [REDACTED]
Sent: Fri, 20 May 2005 10:21:49 -0500
Subject: Re: Manuscript submission

Your manuscript was received and logged into our system. Future correspondence will come from our editor, Charon Pierson.

Sandy Skaalure
AANP Journal
[REDACTED]

----- Original Message -----

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Sent: Wednesday, May 18, 2005 3:55 PM
Subject: Manuscript submission

To whom it may concern,
Please find attached my manuscript file that I am submitting for consideration for publication in your journal.

A Survey of California Nurse Practitioners' Health Practices and Counseling Practices
Jessica Malone, RN, BSN, FNP Student
San Jose State University
Nurse Practitioner
FNP Graduate Student / Contact Author
[REDACTED]

5/24/2005

I will be sending my AIF file this evening in a seperate email. I will also fax the statement of authorship tomorrow.

Thanks-
Jessica Malone
FNP student

5/24/2005

This message has been scanned for known viruses.

From: JessmarieH

To: [REDACTED]

Cc: [REDACTED]

Bcc: JessmarieH

Subject: Manuscript submission

Date: Wed, 18 May 2005 16:55:20 -0400

Files: Malone_J_MMF.doc (107K)

To whom it may concern,
Please find attached my manuscript file that I am submitting for consideration for publication in your journal.

A Survey of California Nurse Practitioners' Health Practices and Counseling Practices
Jessica Malone, RN, BSN, FNP Student
San Jose State University
Nurse Practitioner
FNP Graduate Student / Contact Author
[REDACTED]

I will be sending my AIF file this evening in a separate email. I will also fax the statement of authorship tomorrow.

Thanks-
Jessica Malone
FNP student

[REDACTED]

[REDACTED]