

A Needs Analysis for Northcentral Technical College

Dental Hygienist Program Faculty Manual

by

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ABSTRACT

The purpose of the study is to determine the need for a Program Faculty Manual in the Dental Hygienist Program at Northcentral Technical College (NTC). The study establishes the faculty's level of awareness of the competencies taught in the Dental Hygienist Program at NTC. The study also determines the faculty's level of importance of consistency and calibration in the clinical environment. The Dental Hygiene Programs in the state of Wisconsin have gone to a statewide curriculum. With the implementation, came many changes for the program at NTC. The restructuring of the course content has created opportunity for inconsistency amongst faculty. Also, the student to instructor ratio recommended by the Commission on Dental Accreditation results in a greater need for faculty numbers in each clinical session. The faculty pool consists of full-time dental hygienists, adjunct dental hygienists, and adjunct/supervising dentists. Calibration efforts are needed to ensure consistency. The implementation of a Program

Faculty Manual will increase calibration which has the potential for increasing consistency among the clinical faculty. The results of the study established a level of awareness of the competencies taught in the NTC Dental Hygienist Program. It also verified the faculty's level of importance of calibration and consistency. The results of the study indicate support for implementation of a NTC Dental Hygienist Program Faculty Manual.

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Chapter I: Introduction

Northcentral Technical College (NTC) is one of sixteen colleges that comprise the Wisconsin Technical College System (WTCS). NTC represents part or all of ten counties within its district. Those counties include Marathon, Lincoln, Langlade, Taylor, Price, Shawano, Menominee, Clark, Portage, and Waupaca. Within those counties, lie six campus locations; Antigo (East Campus), Medford (West Campus), Phillips (North Campus), Spencer (Southwest Campus), Wittenberg (Southeast Campus), and the main campus is located in Wausau. NTC is accredited by the Higher Learning Commission; Member – North Central Association. NTC offers over 150 associate degree, technical diploma, and certificate programs. The Dental Hygienist Program is an Associate Degree program.

The Dental Hygienist Program, currently located in the Health Science Center on the Wausau Campus has been in existence since 1980. The program is accredited by the American Dental Association Commission on Dental Accreditation (CODA). During its thirty-year existence, the program has experienced three significant changes.

The first significant change involved the addition of cooperating colleges. During the 1990's partnerships were established with Fox Valley Technical College (FVTC), Chippewa Valley Technical College (CVTC), Western Wisconsin Technical College (WWTC), and Colby Community College (CCC). The concept of the partnership revolved around the premise that NTC would hold the accreditation, that the students would be graduates of NTC in cooperation with their site college, and that all content would be presented in a consistent format directed by NTC. Each instructor would be calibrated to ensure the student received a consistent education. All students at every campus would have the same experience and every instructor would demonstrate identical teaching techniques. Excluding CCC, all partnerships have been dissolved.

The second significant change involved the building of a new dental clinic. The current clinic is located on the main campus in the Health Science Center. The clinic houses forty dental units. The clinic is state-of-the-art. It is designed to meet the changing needs of the dental hygiene profession. As the needs of the community change, so do the response to those needs via the clinical setting. There are four units equipped for dental treatment services. The clinic is designed to accommodate the Central Regional Dental Testing Service (CRDTS). Students can take the practical portion of the licensing examination at NTC. They no longer have to travel to Milwaukee, Minnesota, or any other designated CRDTS site.

The third significant change involved the implementation of a statewide curriculum. In 2004, NTC began the transition from a curriculum that had been in place for twenty-four years to a new curriculum developed by dental hygiene faculty from throughout the state of Wisconsin. Thus began the process of calibration of the new curriculum.

Statement of the Problem

The study will provide a source for data collection of faculty members in the dental hygienist program at NTC. The faculty is employed with NTC and CCC. With the implementation of new curriculum, multiple faculty evaluating student performance, and clinical sites located on two separate college campuses in different states, calibration may be challenging. A compromise in calibration may lead to a lessening of consistency. The implementation of a Program Faculty Manual may improve the level of calibration therefore improving the level of consistency amongst all instructors on both campuses. The collected data from the survey will be used to determine the need for a Program Faculty Manual.

Purpose of the Study

The purpose of the study is to determine the need for a Program Faculty Manual. The Dental Hygienist Programs in the state of Wisconsin have gone to a statewide curriculum. With that implementation, came many changes for the program at NTC. The restructuring of the course content has created opportunity for inconsistency amongst faculty. Also, the student to instructor ration established by the Commission on Dental Accreditation results in a greater need for faculty numbers in each clinical session. The faculty pool consists of full-time hygienists, adjunct hygienists, and adjunct/supervising dentists. Calibration efforts are needed to ensure consistency. Participation in the data collection may support the implementation of a Program Faculty Manual. The implementation of a manual will increase calibration which has the potential for increasing consistency among the clinical faculty.

The objectives for which the study is based are to:

1. Determine the faculty's level of awareness of the competencies taught in the Dental Hygienist Program at Northcentral Technical College.
2. Determine the faculty's level of importance of consistency and calibration in the clinic environment.
3. Determine the need for a Program Faculty Manual for the Dental Hygienist Program at Northcentral Technical College.

Assumptions of the Study

1. It is assumed that the survey statements are valid and reliable.
2. It is assumed that the data gathered from the faculty through the survey is truthful and reliable.

Definitions of Terms

Calculus: A hard deposit on the exposed surfaces of the tooth and any oral prosthesis within the oral cavity. It is composed of calcium phosphate, calcium carbonate, magnesium phosphate, and other elements within an organic matrix composed of plaque, desquamated epithelium, mucin, microorganisms, and other debris. Factor in the initiation and continuation of periodontal disease. The colloquial term is tartar (Mosby, 2008).

Clinical Faculty/Adjunct: Dental hygiene faculty or supervising dentist who currently is in charge of evaluating and grading daily performance in clinic (Clinic Manual, 2009).

Clinic Lead Instructor NTC: Faculty member who is in charge of the clinic course you are enrolled in for the semester (Clinic Manual, 2009).

Dental Hygienist: A licensed dental professional who specializes in preventive care. Professional prophylaxis, radiographs, sealants, and non-surgical therapy are among the procedures performed by a hygienist. Most are licensed to administer local anesthesia, depending on applicable regulations in their area. They usually work for a dentist in a dental office or clinic under a form of supervision. In some locations hygienists are allowed to practice without a dentist's supervision (Mosby, 2008).

Evidence-based Decision Making: The integration of best research evidence with clinical experience and patient values (Nield-Gehrig & Willmann, 2008).

Prophylaxis: A series of procedures where plaque, calculus, and stain are removed from the teeth. This procedure is not the same as coronal polishing because the clinician can work subgingivally if needed. Only a licensed dental hygienist or dental professional is qualified to determine the need for oral prophylaxis and to perform the procedure. The colloquial term is *prophy* (Mosby, 2008).

Site Clinical Lead Instructor: Cooperating College faculty member who works in conjunction with the Clinical Lead Instructor to ensure consistency with policies, procedures, and grading (Clinic Manual, 2009).

Supervising Dentist: Licensed dentist who is present to supervise certain practices of students (such as oral prophylaxes). This faculty member is in charge of evaluating certain procedures as designated per clinic (Clinic Manual, 2009).

Limitations of the Study

There are three limitations identified. They are:

1. The study is only inclusive of the faculty in the NTC Dental Hygienist Program. The small sample includes sixteen instructors from NTC and four from CCC.
2. The survey may be limiting in nature by utilizing a 5 point Likert scale only. There is not an opportunity for the respondents to add any additional comments or ask for points of clarification.
3. It is possible that answers given may not reflect accurately the views and opinions of the respondents due to concern for the appearance of lack of knowledge or calibration.

Methodology

The data collected through this study is gathered via paper/pencil format. Each subject, instructors in the NTC Dental Hygienist Program, is given a survey with the request of a one-day receipt return. The results of the survey utilize a needs assessment addressing the objectives of the study.

Chapter Two will investigate the NTC dental hygiene curriculum, which includes past and present course structure. The need for manuals within the program is reviewed. Calibration, and current efforts employed within the program is also examined.

Chapter Three describes the methodology used for the study. The human subjects and selection method is reviewed. The survey instrument is dissected.

Chapter Four is an analysis of the survey data collection. A presentation of the results is represented in table format. An interpretation of the results is presented.

Chapter Five is a summary. The limitations of the study are presented. A conclusion and recommendations for future research is offered.

Chapter II: Review of Literature

The Dental Hygienist Program, currently located in the Health Science Center on the Wausau Campus has been in existence since 1980. The program is accredited by the American Dental Association Commission on Dental Accreditation (CODA). Upon completion of the program, the students will earn an Associates Degree in Dental Hygiene. Being that NTC is an accredited program, the graduates have the opportunity to complete testing requirements to be licensed in the state(s) of their choice. The American Dental Association (ADA) and the American Dental Hygienists' Association (ADHA) have websites (<http://www.ada.org/> and <http://www/adha.org/> respectively) that direct potential licensees to the requirement expectations of each state. A license is required to practice. A dental hygienist (healthcare provider) maybe prosecuted criminally for practicing without a license (Aiken, 2009). The curriculum within the NTC Dental Hygienist Program prepares the students for the opportunity to participate in licensure. The preparation includes calibration efforts; specifically in-service activities and manuals that outline course and program expectations.

Upon acceptance into the NTC Dental Hygienist Program, students participate in a New Student Orientation. Students are presented with a New Student Orientation Manual. The purpose of the manual is to orient students to the program. Policies, procedures, and expectations are outlined in the manual. Students are directed to retain the manual as a reference source that will guide them throughout their educational experience within the Dental Hygienist Program (2009).

During the first twenty-four years of existence, the curriculum structure remained constant. Program students were scheduled with hygiene courses over a two-year period with non-hygiene courses offered during the summer between first and second year. The first-year

curriculum consisted of Oral Anatomy & Histology, Dental Radiography, Preclinical Dental Hygiene, Dental Materials, Clinical Dental Hygiene 1, and Periodontology 1. The second-year curriculum consisted of Periodontology 2, Clinical Dental Hygiene 2 and 3, Community Dental Health 1 and 2, General & Oral Pathology, Dental Practice Management, and Pharmacology. In 2004, NTC implemented a new curriculum developed by dental hygiene faculty from throughout the state of Wisconsin. The NTC Student Handbook presents the curriculum in a five semester format. The first course is Dental Health Safety and it is offered during the summer prior to any other core program courses. The second semester, which is the fall semester, consists of Oral Anatomy, Embryology & Histology, Dental Radiography, and Dental Hygiene Process I. The third semester courses are Dental Hygiene Process II, Dental Hygiene Ethics & Professionalism, Periodontology, Cariology, Nutrition & Dental Health, and General & Oral Pathology. The fourth (fall) semester of the second year presents Dental Hygiene Process III, Community Dental Health, Dental Pharmacology, Dental Pain Management, and Dental Materials. The final semester of core courses within the curriculum is Dental Hygiene Process IV. During that fifth semester, students are encouraged to take an elective course entitled, Dental Hygiene Transition (2009).

As the curriculum changed, so did the need to increase opportunity for calibration. The student's educational experience was uninterrupted. Lead instructors, the person responsible for the course, have always developed manuals for student use. Each course within the Dental Hygienist Program has a course manual. There is a consistent pattern in the design of the course manuals. Each manual contains a syllabus. All lead instructors follow the same format to maintain consistency in structure. The manual is specific to each course and includes the expectations, evaluations, and outcomes of the course. The print media is easy to use, has a

simple format, which includes visuals, reinforces presented information, and is essential for effective instruction (Mason, 2005).

The instructors in the dental hygiene department at NTC are student focused. The courses in the curriculum are presented with connection to the workplace. Assignments, activities, and projects directly link the educational experience to the practice of dental hygiene. The instruction follows the concept that strong foundational or technical skills, critical-thinking skills, and interpersonal skills will develop a successful dental hygienist that can compete in the global market (Ganzales/Nelson, 2005).

Developing a hygienist with strong technical, interpersonal, and critical-thinking skills requires consistency among the faculty. The way to achieve consistency is through calibration. Efforts are made to increase the knowledge base of all instructors within the hygiene department. Each semester, an in-service is presented specific to the Wausau, WI hygienist and dentists that teach within the program; the RDH/DDS In-service. Each semester, an in-service is held specific to the instructors at the Colby, KS location; NTC/CCC In-service. A three-day in-service is held each spring semester to review program policies, modify curriculum practices, and participate in calibration activities; Program Assessment. Once each semester, a full-time faculty member from NTC will travel to CCC to conduct a site visit. During that visit, calibration opportunities between NTC and CCC take place. Some areas of review for standardization are the facility, clinic environment, lecture accommodations, and program scheduling. Clinical lead instructors are responsible for disseminating any clinical policy or program change that takes place during the course of the semester. This is completed via forum notes. A Clinic Manual is presented to each instructor. The manual is identical to one that each student purchases in the fall of their first-year in the program. Courses that have a lab affiliated with it (Dental Health Safety, Oral

Anatomy, Histology & Embryology, Periodontology, Dental Radiograph, Dental Materials, and Dental Hygiene Process I) distribute faculty manuals to the instructor that is participating in the course. This is done in an as a calibration tool. With increased calibration comes an increase in consistency (Park, 2007).

In the field of dental hygiene, consistency within the educational realm as in clinical practice has been a topic of interest. Three independent studies evaluating clinical assessments have resulted in similar outcomes. One study looked at radiographic interpretation (Lanning, 2006). A second study evaluated variations in periodontal diagnosis and treatment planning (Lanning, 2005). The third study focused on dental calculus detection (Garland, 2009). A pattern demonstrated inconsistencies among the subjects. Inconsistency amongst instructors, particularly in the clinic environment has a negative impact on the student's learning experience.

Students learn in a variety of ways, dependent upon their individual learning style. They may be visual, auditory, or kinesthetic. Instructors need to modify their teaching methods to include all of the learning styles the student may present (Mason, 2005). What is expected is that the students will learn following the pattern of the learning ladder; unawareness, awareness, self-interest, involvement, action, and habit (Wilkins, 2008).

To enhance the teaching experience for both student and instructor, steps that can create an optimal learning environment could be introduced to the instructors in the hygiene department. Those steps could include providing survey mechanisms for instructors to assess their own skill sets and teaching strategies. They could also be shown how to determine students learning style. With increase experience at motivation, for themselves as instructors as well as the students, affective learning will take place (Gagliardi, 2007).

Tools that will assist the instructors within the NTC Dental Hygienist Program to teach at an optimal level are available. Since calibration increases consistency (Park, 2007), offering a concise mechanism for information clarification helps in the calibration efforts. Students are provided with a course manual for each class along with a clinic manual for their clinical course. The instructors are provided with the same clinical manual without variation. Creating a manual specific to meet instructor needs that include curriculum competency overview, assessment clarification tools, as well as techniques for evidence-based decision making will enhance consistency for practice standards (Forrest, 2009).

With the expected shortage of qualified dental hygiene instructors, efforts need to be put into place to motivate currently employed faculty (Majeski, 2004). CODA requires certain specification from instructors within accredited programs; education, work experience, and current licensure. With a shortage of qualified, competent instructors, the need for low ratio numbers in the clinical education setting makes achieving those numbers challenging. Motivated instructors that are calibrated will excel, as do the students they teach (McCann, 2001).

Chapter III: Methodology

The purpose of the study is to explore the need for a Program Faculty Manual. The data collection is designed to assess three specific areas of interest. The first inquiry deals with establishing a level of awareness that instructors have with regards to the competencies taught in each course within the Dental Hygienist Program. The second area of interest is in determining the importance of consistency and calibration in the clinic environment. The third point of investigation deals with the need for implementation of a manual specifically dedicated to faculty. Prior to beginning the study, approval from NTC and CCC were required of the investigator. Approval to proceed was granted by NTC (Appendix B) and CCC (Appendix C).

Subject Selection and Description

The subjects selected to participate in the study were full-time faculty, adjunct hygienists, and adjunct/supervising dentists from NTC and CCC. This convenience sample utilized twenty faculty members (excluding the investigator) in the Dental Hygienist Program. NTC employs sixteen faculty members while CCC employs four. The sixteen NTC employees are comprised of four full-time faculty hygienists (three were in a position to participate in the survey), seven adjunct hygiene instructors and five adjunct/supervising dentists. The four instructors employed by CCC are hygienists (three full-time and one adjunct). All instructors were given an equal and fair opportunity to complete the survey.

Instrumentation

The method selected to collect data for the assessment was a twenty-five statement survey utilizing a 5 point Likert scale; 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree). The survey is based on the program curriculum from the Dental Hygienist Statewide Curriculum. The survey was presented in a paper/pencil format.

A courtesy letter to the faculty (Appendix E), consent form (Appendix D), and a copy of the survey (Appendix A) was mailed or placed in campus mailboxes along with a self-addressed stamped envelope. A one-day post-delivery e-mail was sent to all subjects and included attachments of the courtesy letter, consent form, and survey. The expected completion time of the survey is ten minutes.

Every effort was taken to ensure confidentiality. The demographic data is designed to prevent disclosure of the subjects. The demographic categories are broad in nature so as not to separate any individuals based on response. The survey statement, along with the use of a Likert scale, provides the opportunity for the participants to identify a level of agreement without disclosing their identity. Upon completion of the data collection, the surveys will be shredded.

Data Collection Procedures

A twenty-five statement, paper/pencil survey disseminated to all instructors in the NTC Dental Hygienist Program provided the source for data collection in the study. Estimated completion time was ten minutes. Participants were asked to return the survey within one day of receipt utilizing the self-addressed envelope provided. Completed surveys were returned in the provided self-addressed stamped envelope, via fax, and also e-mail. No payment was offered for survey participation.

Participation in the study is entirely voluntary. Subjects could choose not to participate without any adverse consequences. The subjects have the right to stop the survey at any time. However, if at a later date the subject decided to withdraw from the study, there is no way to identify the anonymous document after it has been turned into the investigator for analysis.

Data Analysis

The data was analyzed using a computerized statistics package. A determination of the mean and standard deviation were computed. Those results were entered into a table depicting the individual survey statements and the statistical results in numeric value. The data collected is nominal and ordinal in nature. All appropriate descriptive statistics were employed.

Limitations

There are three limitations of this study. They are:

1. The study is only inclusive of the faculty in the NTC Dental Hygienist Program. The small sample includes sixteen instructors from NTC and four from CCC.
2. The survey may be limiting in nature by utilizing a 5 point Likert scale only. There is not an opportunity for the respondents to add any additional comments or ask for points of clarification.
3. It is possible that answers given may not reflect accurately the views and opinions of the respondents due to concern for the appearance of lack of information or calibration.

Summary

The content presented in this chapter depicts the subject selection and description of the sample population. The instrumentation, data collection procedures, and the data analysis were presented. Limitations of the study were reviewed.

Chapter IV: Results

The purpose of the study was to determine the need for a Program Faculty Manual for the Dental Hygienist Program at NTC. The data collection tool was a twenty-five question paper/pencil survey. The subjects were full-time faculty, adjunct hygienists, and adjunct/supervising dentists from NTC and CCC. A courtesy letter to the faculty (Appendix E), consent form (Appendix D), and a copy of the survey (Appendix A) was mailed or placed in the campus mailbox of each subject. A self-addressed stamped envelope was provided for convenience of return. A one-day post-delivery e-mail was sent to all subjects and included attachments of the courtesy letter, consent form, and survey.

Demographic Information

There are 20 faculty members (excluding the investigator) in the Dental Hygienist Program. NTC employs 16 faculty members while CCC employs 4. The 16 NTC employees are comprised of 4 full-time faculty hygienists (3 were in a position to participate in the survey), 7 adjunct hygiene instructors, and 5 adjunct/supervising dentists. The 4 instructors at the CCC location are comprised of 3 full-time hygienists and 1 adjunct hygienist. A total of 20 surveys were distributed. Of the 20 surveys, 15 were returned resulting in a 75% return rate of total possible participants.

Table 1

Faculty Location

Response	Frequency (N=15)	Percent
NTC	12	80.0
CCC	3	20.0

Of the 15 respondents, 80% are at Northcentral Technical College located in Wausau, WI and 20% are Colby Community College in Colby, KS.

Table 2

Years of Professional Licensure

Response	Frequency (N=15)	Percent
Less than 10 years	3	20.0
10 < 20 years	2	13.3
20 < 30 years	7	46.7
Greater than 30 years	3	20.0

Approximately 33% of the respondents have been licensed 20 years or less, 47% for 20-29 years and 20% have held a professional license greater than 30 years.

Table 3

Years of Teaching Experience

Response	Frequency (N = 15)	Percent
Less than 10 years	7	46.7
10 < 20 years	4	26.7
20 < 30 years	3	20.0
Greater than 30 years	1	6.6

Approximately 47% of the respondents have taught 10 years or less, 47% have taught 10-29 years and 6% have greater than 30 years of teaching experience.

Table 4

Faculty Status

Response	Frequency (N = 15)	Percent
Full-time Faculty	5	33.3
Adjunct Faculty RDH	6	40.0
Adjunct Faculty/Supervising DDS	4	26.7

Approximately 33% of the respondents are full-time faculty, 40% are adjunct faculty hygienists, and 27% are adjunct faculty/supervising dentists.

Item Analysis

All questions of the survey were based on a 5 point Likert scale; 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree). Survey questions #1-17 assess the faculty's level of awareness of the competencies taught in the Dental Hygienist Program at NTC. Each statement addresses a specific course. The statements are listed in order of course offering from a program student perspective. The subjects may or may not have experience with each course listed in the survey.

Table 5

Questions Related to Data Collected for Program Competency Awareness

Survey Question	Mean	SD
1. I am aware of the competencies taught in Dental Health Safety.	4.00	1.13
2. I am aware of the competencies taught in Oral Anatomy, Embryology, and Histology.	3.06	1.48
3. I am aware of the competencies taught in Dental Radiography.	4.07	0.88
4. I am aware of the competencies taught in Dental Hygiene Process I.	3.73	1.28
5. I am aware of the competencies taught in Dental Hygiene Process II.	3.93	1.33
6. I am aware of the competencies taught in Dental Hygiene Ethics and Professionalism	3.27	1.33
7. I am aware of the competencies taught in Periodontology.	3.73	1.22
8. I am aware of the competencies taught in Cariology.	2.80	1.32
9. I am aware of the competencies taught in Nutrition and Dental Health.	2.93	1.44
10. I am aware of the competencies taught in General and Oral Pathology.	3.40	1.35
11. I am aware of the competencies taught in Dental Hygiene Process III.	3.93	1.28
12. I am aware of the competencies taught in Dental Materials.	3.47	1.25
13. I am aware of the competencies taught in Dental Pharmacology.	2.93	1.49
14. I am aware of the competencies taught in Community Dental Health.	3.07	1.39
15. I am aware of the competencies taught in Dental Pain Management.	3.87	0.92
16. I am aware of the competencies taught in Dental Hygiene Process IV.	3.93	1.28
17. I am aware of the competencies taught in Dental Hygiene Transition into Practice.	3.00	1.36

Question 1 (mean of 4.00, SD of 1.13) Question 3 (mean of 4.07, SD of 0.88) Question 5 (mean of 3.93, SD of 1.33), Question 11 (mean of 3.93, SD of 1.28) Question 16 (mean of 3.93, SD of 1.28) were the five highest scores that had high mean scores and low standard deviations indicating that the majority of the respondents are in consensus. Question 8 (mean of 2.8, SD of 1.32) Question 9 (mean of 2.93, SD of 1.44) Question 13 (mean of 2.93, SD of 1.49) were the three lowest scores that had low means and high standard deviations indicating that the majority of the respondents were varied and there was not a consensus.

Survey questions #18-22 addresses the issue of consistency and calibration with regards to the faculty's level of importance. All questions were based on a 5 point Likert scale; 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree).

Table 6

Questions Related to Data Collected for Consistency and Calibration Importance

Survey Question	Mean	SD
18. I believe knowing what the students are taught in didactic or lab sessions in Dental Hygiene courses increases instructor consistency in clinic.	4.60	0.74
19. Consistency among instructors in clinic is important to me.	4.93	0.26
20. I feel consistency is increased through calibration.	4.87	0.35
21. Being calibrated in clinic is important to me.	4.93	0.26
22. I am satisfied with the calibration I receive.	3.67	0.90

All of the mean scores are high and all of the standard deviation scores are low. Question 19 (mean score of 4.93, SD of 0.26) Question 21 (mean score of 4.93, SD of 0.26) reflect importance for calibration and consistency. Question 22 (mean of 3.67, SD of 0.90) represents

the lowest mean score and the highest standard deviation indicating the majority of the respondents were varied and had the least consensus.

Table 7

Questions Related to Data Collected for Support of Program Faculty Manual

Survey Question	Mean	SD
23. The Clinic Manual, provided to faculty and students, is an adequate tool for calibration.	3.33	0.98
24. When I need clarification in the clinic, I rely on the Clinic Manual.	3.60	1.12
25. The implementation of a Program Faculty Manual (not for student use) would increase consistency and calibration among faculty.	4.33	0.90

Question 23 (mean of 3.33, SD of 0.98) Question 24 (mean of 3.60, SD of 1.12) Question 25 (mean of 4.33, SD of 0.90) are all high mean scores and low standard deviation scores. This indicates that the majority of the respondents are in consensus.

The results of the data collection indicate that courses within the curriculum that has a direct clinical relationship (Dental Health Safety, Dental Hygiene Process II, Dental Hygiene Process III, Dental Hygiene Process IV, and Radiography) the respondents were aware of the competencies taught within that course. Didactic courses without a direct clinical tie resulted in a lower level of awareness by the respondent. The results indicated that calibration and consistency were of value. The satisfaction of calibration, based on the results, needs improvement. The results indicate that a Program Faculty Manual (not for student use) would increase consistency and calibration among faculty.

Chapter V: Summary, Conclusions, and Recommendations

This chapter will include a summary of the study, a review of the limitation of the study, some conclusions, and recommendations with regards to the study of a needs analysis for a NTC Program Faculty Manual.

In summary, a survey mechanism (paper/pencil) was administered to the faculty at NTC and CCC in the Dental Hygienist Program. Twenty surveys were distributed and fifteen were completed, a return rate of 75%. The purpose of the study was to complete a needs analysis for a Program Faculty Manual for the NTC Dental Hygienist Program. The areas of investigation were based on the awareness of program curriculum, the level of importance of calibration and consistency, and the need for a manual specific to faculty.

Limitations of the Study

There are three limitations identified. They are:

1. The study is only inclusive of the faculty in the NTC Dental Hygienist Program. The small sample includes sixteen faculty from NTC and four faculty from CCC.
2. The survey may be limiting in nature by utilizing a 5 point Likert scale only. There is not an opportunity for the respondents to add any additional comments or ask for points of clarification.
3. It is possible that answers given may not reflect accurately the views and opinions of the respondents due to concern for the appearance of lack of information or calibration.

Conclusions

The results indicated that classes with a direct tie to clinical courses reflected awareness of the competencies. The classes that have minimal direct connection to clinical courses reflected a lower level of awareness. There is a high level of importance for calibration and consistency

amongst the respondents. The results indicated a lower level of satisfaction with regards to calibration efforts. The needs assessment indicate that there is a consensus that a Program Faculty Manual will increase calibration and consistency. The three objectives outlined in the study have been satisfied.

Recommendations

The results indicate that the faculty has an increased level of awareness for classes that have a direct tie to clinical courses. There is a lower level of competency awareness for all other courses within the curriculum. The faculty survey also reflects a value for calibration and consistency. The recommendation would be to develop a manual specific to faculty. The Clinic Manuals and Course Manuals are important tools that should be continued; particularly since they are distributed for student use. With the implementation of a Program Faculty Manual, the individual course faculty manuals (with limited distribution) could be eliminated. The results indicated a slight level of dissatisfaction with regards to calibration. The recommendation is to continue current practices of RDH/DDS In-services, NTC/CCC In-services, site visits to CCC and continuation of Program Assessment with possible inclusion of all instructor participation (full-time faculty, adjunct hygienists and adjunct/supervising dentists). Continue the distribution of forum notes, New Student Orientation Manual, and course manual. A final recommendation would be to re-administer the survey one-year after implementation of a Program Faculty Manual. Compare the pre-implementation with the post-implementation results. This process would validate the recommendations presented in this study. It would also be a great opportunity to assess if the level of calibration satisfaction had increased as well as awareness levels for all curriculum within the NTC Dental Hygienist Program.

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Appendix A
Faculty Survey

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

Demographics:

Faculty Location Northcentral Technical College, Wausau, WI
 Colby Community College, Colby, KS

Years of Professional Licensure Less than 10 years
 10 < 20 years
 20 < 30 years
 Greater than 30 years

Years of Teaching Experience Less than 10 years
 10 < 20 years
 20 < 30 years
 Greater than 30 years

Faculty Status Full-time Faculty
 Adjunct Faculty RDH
 Adjunct Faculty/Supervising DDS

Using the scale provided, please respond to the following questions.

1 2 3 4 5

Strongly Disagree Disagree Neither Agree
Nor Disagree Agree Strongly Agree

#	Survey Statements	Strongly Disagree 1	Disagree 2	Neither Agree Nor Disagree 3	Agree 4	Strongly Agree 5
1	I am aware of the competencies taught in Dental Health Safety.	1	2	3	4	5
2	I am aware of the competencies taught in Oral Anatomy, Embryology, and Histology.	1	2	3	4	5
3	I am aware of the competencies taught in Dental Radiography.	1	2	3	4	5
4	I am aware of the competencies taught in Dental Hygiene Process I.	1	2	3	4	5

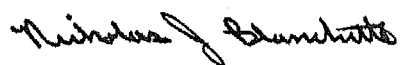
5	I am aware of the competencies taught in Dental Hygiene Process II.	1	2	3	4	5
6	I am aware of the competencies taught in Dental Hygiene Ethics and Professionalism.	1	2	3	4	5
7	I am aware of the competencies taught in Periodontology.	1	2	3	4	5
8	I am aware of the competencies taught in Cariology.	1	2	3	4	5
9	I am aware of the competencies taught in Nutrition and Dental Health.	1	2	3	4	5
10	I am aware of the competencies taught in General and Oral Pathology.	1	2	3	4	5
11	I am aware of the competencies taught in Dental Hygiene Process III.	1	2	3	4	5
12	I am aware of the competencies taught in Dental Materials.	1	2	3	4	5
13	I am aware of the competencies taught in Dental Pharmacology.	1	2	3	4	5
14	I am aware of the competencies taught in Community Dental Health.	1	2	3	4	5
15	I am aware of the competencies taught in Dental Pain Management.	1	2	3	4	5
16	I am aware of the competencies taught in Dental Hygiene Process IV.	1	2	3	4	5
17	I am aware of the competencies taught in Dental Hygiene Transition Into Practice.	1	2	3	4	5
18	I believe knowing what the students are taught in didactic or lab sessions in Dental Hygiene courses increases instructor consistency in clinic.	1	2	3	4	5
19	Consistency among instructors in clinic is important to me.	1	2	3	4	5
20	I feel consistency is increased through calibration.	1	2	3	4	5
21	Being calibrated in clinic is important to me.	1	2	3	4	5
22	I am satisfied with the calibration I receive.	1	2	3	4	5
23	The Clinic Manual, provided to students and faculty, is an adequate tool for calibration.	1	2	3	4	5
24	When I need clarification in clinic, I rely on the Clinic Manual.	1	2	3	4	5
25	The implementation of a Program Faculty Manual (not for student use) would increase consistency and calibration among faculty.	1	2	3	4	5

Appendix B

Northcentral Technical College Approval Letter

To: Debra Koziel

Northcentral Technical College and the Continuous Improvement Office have reviewed your survey instrument and methodology regarding your thesis project titled "Need Analysis for a Program Faculty Manual". This letter is informing you that your proposed study has been approved. If you have any additional questions or concerns please contact me at extension 1025 or at blanchet@ntc.edu. Thank you and good luck with your project.



Nick Blanchette
Director of Continuous Improvement
Northcentral Technical College
715-675-3331 x1025
blanchet@ntc.edu

cc: Jeannie Worden, Sharon Frazier, Becky Rajek

Appendix C

Colby Community College Approval Letter



August 31, 2009

To: Debra Koziel

Colby Community College and the Academic Affairs Office have reviewed your survey instrument and methodology regarding your thesis project titled "Need Analysis for a Program Faculty Manual". This letter is informing you that your proposed study has been approved. If you have any additional questions or concerns please contact me at 785-460-5403 or at paula.davis@colbycc.edu.

Thank you and good luck with your project.

A handwritten signature in black ink, appearing to read "Paula Davis", with a long, sweeping horizontal flourish at the end.

Dr. Paula Davis
Vice President of Academic Affairs
785-460-5403
paula.davis@colbycc.edu

Colby Community College
1255 South Range
Colby, KS 67701

Appendix D
Informed Consent Form

Consent to Participate In UW-Stout Approved Research

Title: A Needs Analysis for Northcentral Technical College Dental Hygienist Program Faculty Manual

Investigator:

Debra L. Koziel
920 River Street
Schofield, WI 54476
715-355-9450

Research Sponsor:

Dr. Katherine Lui
248 Technology Wing, Jarvis Hall
University of Wisconsin - Stout
Menomonie, WI 54751
715-232-5634

Description:

Objectives:

4. Determine the faculty's level of awareness of the competencies taught in the Dental Hygienist Program at Northcentral Technical College.
5. Determine the faculty's level of importance of consistency and calibration in the clinic environment.
6. Determine the need for a Program Faculty Manual for the Dental Hygienist Program at Northcentral Technical College.

Risks and Benefits:

The purpose is to conduct a survey of the faculty in the Dental Hygienist Program at Northcentral Technical College and determine a needs analysis for a Program Faculty Manual. The Dental Hygienist Programs in the state of Wisconsin have gone to a statewide curriculum. With that implementation, came many changes for the program at Northcentral Technical College. The restructuring of the course content has created opportunity for inconsistency amongst faculty. Also, the student to instructor ratio established by the Commission on Dental Accreditation results in a greater need for faculty numbers in each clinical session. The faculty pool consists of full-time hygienists, adjunct hygienists, and adjunct/supervising dentists. Calibration efforts are needed to ensure consistency. Participation in the data collection may support the implementation of a Program Faculty Manual. The implementation of a manual will increase calibration which has the potential for increasing consistency among the clinical faculty. There is a minimal risk of identity disclosure should the participant chose to discuss or disclose their survey responses. The investigator will not violate the confidentiality agreement established with the participant.

Time Commitment and Payment:

The survey should not take any longer than 10 minutes to complete. Participants will be asked to return the survey within one day of receipt utilizing the self-addressed envelope provided. No payment will be offered for survey participation.

Confidentiality:

Your name will not be included on any documents. We do not believe that you can be identified from any of this information.

Right to Withdraw:

Your participation in this study is entirely voluntary. You may choose not to participate without any adverse consequences to you. You have the right to stop the survey at any time. However, should you choose to participate and later wish to withdraw from the study, there is no way to identify your anonymous document after it has been turned into the investigator.

IRB Approval:

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

Investigator:

Debra L. Koziel
715-355-9450
koziel@ntc.edu

Advisor:

Dr. Katherine Lui
715-232-5634
luik@uwstout.edu

IRB Administrator

Sue Foxwell, Director, Research Services
152 Vocational Rehabilitation Bldg.
UW-Stout
Menomonie, WI 54751
~~UW-Stout~~
foxwells@uwstout.edu

Statement of Consent:

By completing the following survey, you agree to participate in the project entitled, "A Needs Analysis for Northcentral Technical College Dental Hygienist Program Faculty Manual".

Appendix E

Courtesy Letter to Faculty

December 12, 2009

Dear Colleague,

I am conducting research for my master's thesis. I am asking for your input based on your experience as a faculty member with the Northcentral Technical College Dental Hygienist Program. All responses are anonymous and will be used solely for the purpose of data collection in the needs assessment for this theses project. The survey will take approximately ten-minutes to complete. Please complete the survey and return to me in the self-addressed envelope.

Thank you for your cooperation and participation.

Debra L. Koziel, RDH, BS