



Sports Medicine and Rehabilitation Sciences

Associate in Science

Program Audit

2015-2020

External Auditor:

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PURPOSE

The Sports Medicine and Rehabilitation Sciences Program is designed to prepare students to transfer into various higher education pathways to obtain an entry level degree in Athletic Training, Physical Therapy, Occupational Therapy, Exercise Science, or other related professions. The curriculum is designed to allow students to gain foundational knowledge and coursework that will facilitate transfer to other health care profession programs offered at 4 year institutions. Coursework is heavily supported by hands on, practical experiences that challenge the student to develop the ability to take knowledge from the classroom and effectively implement it into real world situations.

The curriculum progresses sequentially to develop foundational skills and knowledge found across the spectrum of professions within Sports Medicine and Rehabilitation Sciences. As the healthcare fields evolve, educational programs develop to better prepare entry level professionals. It is important for our program to continue to evolve with these programs and optimally prepare students to assimilate into these programs along the pathway to their target profession. The educational foundation of the majority of these professions has always been beginning the mastery of clinical proficiencies early in the educational process. This program is guided by that principle and student begin to get the chance to implement what they have learned in their internship experience within the program. Some of these skills include injury evaluation, rehabilitation of injury, and prevention of injury while learning invaluable concepts of how each profession functions within the healthcare system.

CURRICULUM

Sports Medicine and Rehabilitation Sciences

Associate in Science Degree

Course Code	Course Title	Credits
First Year		
COLS 101	College Success	1
CMTH 102	Introduction to Communication	3
ENGL 101	English I	3
MATH 140	College Algebra	3
SMAT 101	Foundations of Sports Medicine and Rehabilitation Sciences	3
SMAT 202	Kinesiology: Applied Anatomy	3
		16
Second Semester		
BIOS 204	Anatomy & Physiology I	4
ENGL 151L	English II (Literature) (D)	3
MATH 150	Introductory Statistics	3
SMAT 230	Prevention and Management of Injury and Illness	3
SMAT 235	Basic Sports Medicine and Rehabilitation Sciences Techniques	1
		14
Third Semester		
BIOS 254	Anatomy & Physiology II	4
NUTR 105	Introduction to Nutrition	3

PSYC 103	Introduction to Psychology	3
SMAT 280	Measurement and Evaluation of the Lower Extremity	4
-----	Arts & Humanities Elective (AH)	3
		17

Fourth Semester

PHYS 101	Physics I	4
CHEM 135	Chemistry of Life	4
SOCA 102	Cultural Anthropology	3
SMAT 240G	Acute Care of Injury and Illness	3
SMAT 260	Exercise Physiology and Exercise Prescription	3
		17

Total Credits **64**

- For the Arts and Humanities (AH) Elective, students must select courses from the list of approved courses in that category.
- Either the AH Elective, PSYC 103, or SOCA 102 must be taken in a writing intensive (WI) section.
- One course should be designated as Diversity (D).

Career Potential: Certified Athletic Trainer, Physical Therapist, Occupational Therapist, Strength and Conditioning Specialist, Physician Assistant, Exercise Physiologist, Group Fitness Instructor, Exercise Specialist, Weight Management Consultant, Personal Trainer

Transfer Potential: East Stroudsburg University, Moravian College, DeSales University, Temple University

ASSESSMENT

Program Outcome Assessment

In the fall of 2020 an assessment of how students were performing in 3 key program outcomes at their clinical hour sites was examined. These 3 program outcomes include:

- Program Outcome 3: Demonstrate knowledge of prevention, management, and rehabilitation of athletic injuries and begin to bridge the gap between classroom knowledge and clinical practice.
- Program Outcome 6: Recognize sports medicine and rehabilitative professional practice standards and employment settings as well as the behavioral attitudes needed to excel in the clinical environment.
- Program Outcome 7: Apply effective communication skills among health care providers to begin to develop a patient centered focus.

It is important to note a few perspectives on the current analysis. Academic preparation for our target professions within Sports Medicine and Rehabilitation Science has evolved over the previous 5 years since the 2015 audit. Our program has evolved both to provide better preparation to students and to facilitate transfer into the changing structure of 4 year degree programs. The field of Athletic Training

continues to be the primary profession students graduate from NCC to pursue. Educational standards for Athletic Training has taken a significant step forward with the transition to entry into the profession occurring at the master's degree level being nearly complete and the introduction of the CAATE 2020 Standards for Professional Programs. Our program has adjusted to these changes by transitioning to foundational knowledge across the target professions of the program. These include Athletic Training, Physical Therapy, Occupational Therapy, Exercise Science, Strength and Conditioning among others. Pathways for student in our program will primarily transfer into 4 year degrees such as Health Sciences or other preparation bachelors programs for their target profession.

These changes led to programmatic changes that were accepted by the NCC Curriculum Committee in 2017. Changes included the deletion of HEAL 150 – Contemporary Health (course not required by a large majority of transfer institutions), deletion of SMAT 285 – Athletic Training Clinical Experience Laboratory (some institutions were not accepting the clinical hours from this course), addition of 75 clinical experience hours to SMAT 280 – Measurement and Evaluation of the Lower Extremity. These changes resulted in a decrease of total program credit hours from 68 to 64.

Our philosophy on our program outcome assessment has evolved as we have more students pursuing professions outside of Athletic Training. We have enhanced our clinical hours requirement to place the student with the profession they look to move into and created specific profession specific evaluation forms for these experiences. This change will hopefully occur in Fall of 2021 as we emerge from the COVID-19 Pandemic. There were no clinical experiences in 2020 due to the COVID-19 pandemic and students completed a comprehensive clinical decision virtual curriculum. This analysis will focus on comparison with data from the 2015 Audit.

Section 1 outlines the data collected from the evaluations from 2015-2019. Section 2 contains programmatic and graduate survey data.

In section 1, data on student performance was derived from the student's clinical hours evaluation form (See Appendix A) completed by their Clinical Mentor. The evaluation form rates Athletic Training competencies taught within the program that the students are applying into clinical practice. These competencies are derived from the CAATE's 2011 Educational Competencies Manual. Although the program is not accredited by CAATE (they only accredit 4 year programs) we strive to ensure our students are effectively prepared with foundational knowledge to be successful to transfer into Athletic Training preparation programs. The educational preparation of the Athletic Training field has recently moved away from these competencies in the 2020 Professional Standards and our new clinical assessments will be restructured to align with the new Standards.

Each competency on the clinical hours evaluation form is rated on a scale from 0 to 4 with 4 being exceptional. Our goal within the program will be to not fall below an overall average of 3.5 on any competency. We would also like to see 70% of our students achieving over a score of 3 and 90% achieving over a score of 2 for both overall and specific competencies.

Program Outcome 3 - Program Outcome 3 was further divided and given specific scores for prevention, management, and rehabilitation.

Students will demonstrate knowledge of prevention, management, and rehabilitation of athletic injuries and begin to bridge the gap between classroom knowledge and clinical practice.

A. Outcome 3: prevention component

The prevention component of Program Outcome 3 was assessed with the following competencies

- PHP 3: Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.
- PHP 5: Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.
- PHP 7: Implement disinfectant procedures to prevent the spread of infectious diseases and to comply with Occupational Safety and Health Administration (OSHA) and other federal regulations.
- PHP 8: Identify the necessary components to include in a preparticipation physical examination as recommended by contemporary guidelines (eg, American Heart Association, American Academy of Pediatrics Council on Sports Medicine & Fitness).
- PHP 9: Explain the role of the preparticipation physical exam in identifying conditions that might predispose the athlete to injury or illness.
- PHP 10: Explain the principles of the body's thermoregulatory mechanisms as they relate to heat gain and heat loss.
- PHP 11: Explain the principles of environmental illness prevention programs to include acclimation and conditioning, fluid and electrolyte replacement requirements, proper practice and competition attire, hydration status, and environmental assessment (eg, sling psychrometer, wet bulb globe temperatures [WBGT], heat index guidelines).
- PHP 12: Summarize current practice guidelines related to physical activity during extreme weather conditions (eg, heat, cold, lightning, wind).
- PHP 13: Obtain and interpret environmental data (web bulb globe temperature [WBGT], sling psychrometer, lightning detection devices) to make clinical decisions regarding the scheduling, type, and duration of physical activity.
- PHP 23: Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.
 - Ankle, Achilles, arch, shin splint, turf toe, hip spica wrap, wrist, thumb spica, finger buddy tape, quad/hamstring wrap, groin wrap

Below is the overall performance for all students on the Prevention aspect of program outcome 3 including a specific measurement for taping skills.

Overall Prevention Performance			
	Overall Average	# of Students over 3 (%)	# of students over 2 (%)
Overall Prevention (2015)	3.64	12/14 (86%)	14/14 (100%)
2020	3.56	30/37 (81%)	37/37 (100%)
Taping Skills (2015)	3.61	12/14 (86%)	14/14 (100%)
2020	3.49	34/37 (92%)	37/37 (100%)

Below is the specific performance of students on individual prevention competencies that make up the prevention aspect of program outcome 3 with comparison to the 2015 audit.

Specific Prevention Performance		
	# of Students over 3 (%)	# of students over 2 (%)
PHP 3 (2015)	5/5 (100%)	5/5 (100%)
2020	24/25 (96%)	25/25 (100%)
PHP 5 (2015)	1/4 (25%)	4/4 (100%)
2020	11/18 (61%)	17/18 (94%)
PHP 7 (2015)	3/4 (75%)	4/4 (100%)
2020	16/20 (80%)	20/20 (100%)
PHP 8, 9 (2015)	6/7 (86%)	7/7 (100%)
2020	15/22 (68%)	21/22 (95%)

PHP 10, 11 (2015)	8/12 (67%)	11/12 (92%)
2020	19/32 (59%)	31/32 (97%)
PHP 12, 13 (2015)	5/7 (71%)	7/7(100%)
2020	16/24 (67%)	23/24 (96%)
PHP 23 (2015)	9/13 (69%)	13/13 (100%)
2020	18/27 (67%)	27/27 (100%)
Ankle (2015)	6/12 (50%)	11/12 (92%)
2020	11/26 (42%)	23/26 (88%)
Achilles (2015)	6/9 (67%)	8/9 (89%)
2020	11/18 (61%)	17/18 (94%)
Arch (2015)	6/9 (67%)	9/9 (100%)
2020	11/17 (65%)	17/17 (100%)
Shin (2015)	4/5 (80%)	5/5 (100%)
2020	10/16 (63%)	16/16 (100%)
Turf toe (2015)	5/6 (83%)	6/6 (100%)
2020	9/16 (56%)	16/16 (100%)
Hip Spica (2015)	3/6 (50%)	5/6 (83%)
2020	7/15 (50%)	13/14 (93%)
Wrist (2015)	6/9 (67%)	9/9 (100%)
2020	10/16 (63%)	16/16 (100%)
Thumb spica (2015)	6/8 (75%)	8/8 (100%)
2020	12/21 (57%)	21/21 (100%)
Finger buddy tape (2015)	7/8 (88%)	8/8 (100%)
2020	12/18 (67%)	18/18 (100%)
Quad/hamstring wrap (2015)	5/8 (63%)	7/8 (88%)
2020	9/17 (53%)	16/17 (94%)
Groin wrap (2015)	3/5 (60%)	4/5 (80%)
2020	5/13 (39%)	12/13 (92%)

Our students met our overall expectation on the prevention component of program outcome 3 achieving an overall average of 3.56.

The specific prevention performance scores gave further insight into competencies where our students need more focus.

- 2/18 specific competency measures met our goal of 70% of students achieving higher than a score of 3.
- 17/18 specific competency measures met our goal of 90% of students achieving higher than a score of 2. **This increased from 14/18 in the 2015 Audit**

2015 Intervention for prevention component improvement evaluation and 2020 Audit Recommendations

The following represents competency measurements that did not reach 70% achieving a score of 3 out of 4 and our proposed interventions for improvement.

- PHP 5: Incorporate the NATA position statement on Pre-Participation Physical Conditions and Disqualifying Conditions into the curriculum. (SMAT 101)
 - Incorporate student experience with pre-participation physicals at NCC.
 - Reinforce knowledge by integrating into SMAT 245 curriculum.

- PHP 10, 11: Incorporate the NATA consensus statement on Heat Acclimitization into the curriculum. (SMAT 101, SMAT 240) Expand environmental exercise component within Exercise Physiology and Exercise Prescription (SMAT 260)
 - Make this knowledge a mandatory component of clinical hours assessment
- PHP 23: Integrate taping/bracing skills into each course within the curriculum by building in practice time and skill review. Begin to develop taping skills earlier in the curriculum within SMAT 101. The specific tape jobs indicated in the table above provides a guide to priority of review and practice.
 - Continue to integrate and check competency across multiple courses with more of a focus on integrating the Ankle tape earlier.

A. Outcome 3: Management Component

The management component of Program Outcome 3 was assessed with the following competencies

- CE 5: Describe the influence of pathomechanics on function.
- CE 6: Describe the basic principles of diagnostic imaging and testing and their role in the diagnostic process.
- CE 7: Identify the patient's participation restrictions (disabilities) and activity limitations (functional limitations) to determine the impact of the condition on the patient's life.
- CE 13: Obtain a thorough medical history that includes the pertinent past medical history, underlying systemic disease, use of medications, the patient's perceived pain, and the history and course of the present condition.
- CE 15: Demonstrate the ability to modify the diagnostic examination process according to the demands of the situation and patient responses.
- CE 17: Use clinical reasoning skills to formulate an appropriate clinical diagnosis for common illness/disease and orthopedic injuries/conditions.
- CE 18: Incorporate the concept of differential diagnosis into the examination process.
- CE 19: Determine criteria and make decisions regarding return to activity and/or sports participation based on the patient's current status.
- CE 20: Use standard techniques and procedures for the clinical examination of common injuries, conditions, illnesses, and diseases including, but not limited to:
 - a: history taking
 - b: inspection/observation
 - c: palpation
 - d: functional assessment
 - e: selective tissue testing techniques / special tests
 - f: neurological assessments (sensory, motor, reflexes, balance, cognitive function)
 - h: circulatory assessments (pulse, blood pressure, auscultation)
- CE 21: Assess and interpret findings from a physical examination that is based on the patient's clinical presentation. This exam can include:
 - a: Assessment of posture, gait, and movement patterns
 - b: Palpation
 - c: Muscle function assessment
 - d: Assessment of quantity and quality of osteokinematic joint motion
 - e: Capsular and ligamentous stress testing
 - f: Joint play (arthrokinematics)
 - g: Selective tissue examination techniques / special tests
 - h: Neurologic function (sensory, motor, reflexes, balance, cognition)
- CE 22: Determine when the findings of an examination warrant referral of the patient
- AC 4: Demonstrate the ability to perform scene, primary, and secondary surveys.

- AC 6: When appropriate, obtain and monitor signs of basic body functions including pulse, blood pressure, respiration, pulse oximetry, pain, and core temperature. Relate changes in vital signs to the patient's status.
- AC 7: Differentiate between normal and abnormal physical findings (eg, pulse, blood pressure, heart and lung sounds, oxygen saturation, pain, core temperature) and the associated pathophysiology.
- AC 19: Explain the proper procedures for managing external hemorrhage (eg, direct pressure, pressure points, tourniquets) and the rationale for use of each.
- AC 20: Select and use the appropriate procedure for managing external hemorrhage.
- AC 21: Explain aseptic or sterile techniques, approved sanitation methods, and universal precautions used in the cleaning, closure, and dressing of wounds
- AC 22: Select and use appropriate procedures for the cleaning, closure, and dressing of wounds, identifying when referral is necessary.
- AC 34: Explain the importance of monitoring a patient following a head injury, including the role of obtaining clearance from a physician before further patient participation.
- AC 37: Select and apply appropriate splinting material to stabilize an injured body area.
- AC 39: Select and implement the appropriate ambulatory aid based on the patient's injury and activity and participation restrictions.
- AC 43: Instruct the patient in home care and self-treatment plans for acute conditions.
- PS 3: Describe how psychosocial considerations affect clinical decision-making related to return to activity or participation (eg, motivation, confidence).
- PS 6: Explain the importance of educating patients, parents/guardians, and others regarding the condition in order to enhance the psychological and emotional well-being of the patient.

Below is the overall performance for all students on the management aspect of program outcome 3 with comparisons to the 2015 Audit.

Overall Management Performance			
	Overall Average	# of Students over 3 (%)	# of students over 2 (%)
Overall Management (2015)	3.55	13/14 (93%)	14/14 (100%)
2020	3.56	34/37 (92%)	37/37 (100%)

Specific Management Performance

	# of Students over 3 (%)	# of students over 2 (%)
CE 5 (2015)	4/10 (40%)	10/10 (100%)
2020	17/29 (59%)	29/29 (100%)
CE 6 (2015)	7/10 (70%)	10/10 (100%)
2020	17/28 (61%)	28/28 (100%)
CE 7, 19 (2015)	6/9 (67%)	9/9 (100%)
2020	18/30 (60%)	30/30 (100%)
CE 13 (2015)	5/8 (63%)	8/8 (100%)
2020	17/26 (65%)	25/26 (96%)
CE 15 (2015)	6/8 (75%)	8/8 (100%)
2020	18/28 (64%)	28/28 (100%)

CE 17, 18 (2015)		4/9 (44%)	9/9 (100%)
	2020	11/26 (42%)	25/26 (96%)
CE 20 (2015)		4/7 (57%)	7/7 (100%)
	2020	18/25 (72%)	24/25 (96%)
A (2015)		5/9 (56%)	9/9 (100%)
	2020	18/30 (60%)	30/30 (100%)
B (2015)		5/9 (56%)	9/9 (100%)
	2020	20/30 (67%)	30/30 (100%)
C (2015)		4/10 (40%)	10/10 (100%)
	2020	17/30 (57%)	29/30 (97%)
D (2015)		2/10 (20%)	9/10 (90%)
	2020	13/31 (42%)	28/31 (90%)
E (2015)		5/11 (45%)	11/11 (100%)
	2020	16/30 (53%)	29/30 (97%)
F (2015)		5/9 (56%)	9/9 (100%)
	2020	16/28 (57%)	26/28 (93%)
H (2015)		5/8 (63%)	8/8 (100%)
	2020	17/26 (65%)	17/25 (96%)
CE 21 (2015)		6/8 (75%)	8/8 (100%)
	2020	14/20 (70%)	19/20 (95%)
A (2015)		5/9 (56%)	9/9 (100%)
	2020	24/26 (92%)	25/26 (96%)
B (2015)		5/11 (45%)	11/11 (100%)
	2020	16/29 (55%)	28/29 (97%)
C (2015)		5/9 (56%)	9/9 (100%)
	2020	16/26 (62%)	25/26 (96%)
D (2015)		2/3 (67%)	3/3 (100%)
	2020	13/19 (68%)	18/19 (95%)
E (2015)		2/5 (40%)	5/5 (100%)
	2020	13/23 (57%)	22/23 (96%)
F (2015)		2/3 (66%)	2/3 (66%)
	2020	11/20 (55%)	18/20 (90%)
G (2015)		2/6 (33%)	6/6 (100%)
	2020	14/24 (58%)	23/24 (96%)
H (2015)		2/4 (50%)	3/4 (75%)
	2020	13/20 (65%)	18/20 (90%)
CE 22 (2015)		4/6 (67%)	6/6 (100%)
	2020	17/25 (68%)	24/25 (96%)
AC 4 (2015)		0/1 (0%)	1/1 (100%)
	2020	8/17 (47%)	15/17 (88%)
AC 6, 7 (2015)		2/3 (67%)	3/3 (100%)
	2020	10/18 (56%)	16/18 (89%)
AC 19, 20 (2015)		2/3 (67%)	3/3 (100%)
	2020	13/18 (72%)	17/18 (94%)
AC 21, 22 (2015)		3/5 (60%)	5/5 (100%)
	2020	18/24 (75%)	23/24 (96%)
AC 34 (2015)		4/5 (80%)	5/5 (100%)
	2020	16/23 (70%)	23/23 (100%)
AC 37 (2015)		4/5 (80%)	5/5 (100%)
	2020	16/20 (80%)	19/20 (95%)

AC 39 (2015)	2/3 (67%)	3/3 (100%)
2020	14/18 (78%)	17/18 (94%)
AC 43 (2015)	3/4 (75%)	4/4 (100%)
2020	15/20 (75%)	19/20 (95%)
PS 3 (2015)	2/4 (50%)	4/4 (100%)
2020	9/15 (60%)	15/15 (100%)
PS 6 (2015)	4/6 (67%)	6/6 (100%)
2020	14/22 (64%)	21/22 (95%)

Our students met our overall expectation on the management component of program outcome 3 achieving an overall average of 3.56.

The specific management performance scores gave further insight into competencies where our students need more focus.

- 9/34 specific competency measures met our goal of 70% of students achieving higher than a score of 3. **This was an increase from 6/34 for the 2015 Audit**
- 33/34 specific competency measures met our goal of 90% of students achieving higher than a score of 2. **This was an increase form 32/34 in the 2015 Audit.**

2015 Intervention for the management component improvement evaluation and 2020 Audit Recommendations

The following represents competency measurements that did not reach 70% achieving a score of 3 out of 4 and our proposed interventions for improvement.

- CE 5: Expand the development of movement evaluation within SMAT 202: Kinesiology. With the addition of SMAT 280: Measurement and Evaluation of Lower Extremity Injury students will get an in depth look at the evaluation of pathomechanics.
 - Incorporate this information in the biomechanics section of SMAT 260
- CE 7, 19: Information was added to SMAT 101: Foundations of Sports Medicine and Athletic Training and SMAT 230: Prevention and Management of Athletic Injury and Illness on the rehabilitation process. This information includes criteria for return to play and disqualification from activity. Information on exercise in special populations was added into SMAT 260.
- CE 13: The foot and ankle evaluation is now a component of both SMAT 101 and SMAT 230 which will aid students in their clinical history taking skills. The addition of SMAT 280 will also address this.
 - Integrate clinical decision making concepts further into the areas where this content is covered within the program
- CE 17, 18: The foot and ankle evaluation is now a component of both SMAT 101 and SMAT 230. The addition of SMAT 280 will also address this.
- CE 20: The foot and ankle evaluation is now a component of both SMAT 101 and SMAT 230. The addition of SMAT 280 will also address this.
 - There was significant improvement in this competency
- CE 22: The foot and ankle evaluation is now a component of both SMAT 101 and SMAT 230. The addition of SMAT 280 will also address this.
 - There was minimal improvement in this competency.
- AC 4: The on-the-field evaluation is covered more in depth in both SMAT 235 and SMAT 240.

- AC 6, 7: Information and competencies were added into SMAT 245 to address this.
 - Ensure that there is competency testing in both SMAT 235 and SMAT 245
- AC 21, 22: More in depth coverage of this topic in SMAT 235 and SMAT 240 with practical exam requirement and OSHA training.
- AC 39: Additional competencies and practical exam added into SMAT 234 and SMAT 235.
- PS 3: Topic added into SMAT 101 and integrated into existing injury rehabilitation curriculum.

B. Outcome 3: rehabilitation component

The rehabilitation component of Program Outcome 3 was assessed with the following competencies

- TI 1: Describe and differentiate the physiological and pathophysiological responses to inflammatory and non-inflammatory conditions and the influence of these responses on the design, implementation, and progression of a therapeutic intervention.
- TI 11: Design therapeutic interventions to meet specified treatment goals.
 - a: Assess the patient to identify indications, contraindications, and precautions applicable to the intended intervention.
 - b: Position and prepare the patient for various therapeutic interventions.
 - c: Describe the expected effects and potential adverse reactions to the patient.
 - e: Apply the intervention, using parameters appropriate to the intended outcome.
 - f: Reassess the patient to determine the immediate impact of the intervention.

Below is the overall performance for all students on the rehabilitation aspect of program outcome 3 with comparison to the 2015 Audit.

Overall Rehabilitation Performance			
	Overall Average	# of Students over 3 (%)	# of students over 2 (%)
Overall Rehabilitation (2015)	3.76	11/11 (100%)	11/11 (100%)
2020	3.56	37/39 (95%)	39/39 (100%)

Specific Rehabilitation Performance		
	# of Students over 3 (%)	# of students over 2 (%)
TL 1 (2015)	5/9 (56%)	9/9 (100%)
2020	16/27 (59%)	27/27 (100%)
TL 11 (2015)	8/9 (89%)	9/9 (100%)
2020	17/25 (68%)	23/25 (92%)
A (2015)	7/9 (78%)	9/9 (100%)
2020	15/25 (60%)	22/25 (88%)
B (2015)	7/9 (78%)	9/9 (100%)
2020	14/25 (56%)	24/25 (96%)
C (2015)	8/11 (73%)	11/11 (100%)
2020	16/27 (59%)	26/27 (96%)
E (2015)	5/6 (83%)	6/6 (100%)
2020	12/20 (60%)	18/20 (90%)
F (2015)	2/2 (100%)	2/2 (100%)
2020	9/15 (60%)	13/15 (87%)

Our students met our overall expectation on the rehabilitation component of program outcome 3 achieving an overall average of 3.56. This represents a decrease from 3.76 in the 2015 Audit.

The specific rehabilitation performance scores gave further insight into competencies where our students need more focus.

- 0/7 specific competency measures met our goal of 70% of students achieving higher than a score of 3. 6/7 in the 2015 Audit
- 5/7 specific competency measures met our goal of 90% of students achieving higher than a score of 2. 7/7 in the 2015 Audit.

Intervention for improvement of the rehabilitation component

The following represents competency measurements that did not reach 70% achieving a score of 3 out of 4 and our proposed interventions for improvement.

- TL1: Rehabilitation basics and working with the inflammatory response have been incorporated into SMAT 101 and SMAT 235. The rehabilitation process will also be incorporated into our new course SMAT 285.
 - 2020 strategy: Further integrate this into the SMAT 245 curriculum.

Program Outcome 6

Provide students with knowledge of athletic training practice standards and employment settings as well as the behavioral attitudes needed to excel in the athletic training environment.

Below is the overall performance for all students on Program Outcome 6.

Program Outcome 6: Behavioral Outcomes		
Overall Average	# of Students over 3 (%)	# of students over 2 (%)
3.49 (2015)	13/14 (93%)	14/14 (100%)
3.62 (2020)	38/39 (97%)	39/39 (100%)

Specific Behavioral Performance		
	# of Students over 3 (%)	# of students over 2 (%)
Dependability (2015)	10/14 (71%)	14/14 (100%)
2020	28/38 (74%)	37/38 (97%)
Dress (2015)	11/14 (79%)	14/14 (100%)
2020	33/38 (87%)	38/38 (100%)
Scope of Knowledge (2015)	11/14 (79%)	14/14 (100%)
2020	30/38 (79%)	38/38 (100%)
Initiative (2015)	5/14 (36%)	12/14 (86%)
2020	20/38 (53%)	35/38 (92%)
Confidence (2015)	4/14 (29%)	9/14 (64%)
2020	16/38 (42%)	33/38 (87%)

Our students did meet our overall expectation program outcome 6 achieving an overall average of 3.62. **The program showed increased student performance in these outcomes compared to the 3.49 overall average of the 2015 Audit**

The specific management performance scores gave further insight into competencies where our students need more focus.

- 3/5 specific competency measures met our goal of 70% of students achieving higher than a score of 3. This was consistent with the 2015 Audit.
- 4/5 specific competency measures met our goal of 90% of students achieving higher than a score of 2. Improvement was shown in comparison to the 2015 Audit where 3/5 was achieved.

Intervention

The following represents competency measurements that did not reach 70% achieving a score of 3 out of 4 and our proposed interventions for improvement.

- Initiative- This area has been stressed in pre-internship lectures and preparation. The integration of more practical components to the curriculum has been added to improve initiative.
 - Integrate a review of knowledge and competencies that will be utilized in clinical experiences at the beginning of SMAT 280.
- Confidence- This is a common characteristic of Athletic Training students throughout their development. Continued emphasis on reviewing knowledge, practical exams and activities, and creating real world scenarios have been implemented across the program to begin to improve this domain.
 - Integrate a review of knowledge and competencies that will be utilized in clinical experiences at the beginning of SMAT 280.

Program Outcome 7

Students will learn effective communication among health care providers and other integral members within the field of athletic training (administrators, coaches, family, and community).

Below is the overall performance for all students on Program Outcome 7.

Program Outcome 7: Communication		
Overall Average	# of Students over 3 (%)	# of students over 2 (%)
3.79 (2015)	11/14 (79%)	14/14 (100%)
3.74 (2020)	30/38 (79%)	37/38 (97%)

Our students met our overall expectation of program outcome 7 achieving an overall average of 3.74 which represents a minimal decrease from 3.79 in comparison with the 2015 Audit.

The specific management performance scores gave further insight into competencies where our students need more focus.

- 1/1 specific competency measures met our goal of 70% of students achieving higher than a score of 3.
- 1/1 specific competency measures met our goal of 90% of students achieving higher than a score of 2.

PROGRAM FACULTY

Adjunct Faculty

James Reidy MS, LAT, ATC, CSCS

Program Manager

Canisius College

Ithaca College

Bachelor of Science in Athletic Training

Master of Science in Exercise Physiology

Tomas Montanez MS, LAT, ATC

University of Puerto Rico

University of Puerto Rico

East Stroudsburg University

Bachelor of Education in Physical Education

Bachelor of Science in Athletic Therapy

Master of Science in Athletic Training

Jaimie Constable LAT, ATC

East Stroudsburg University

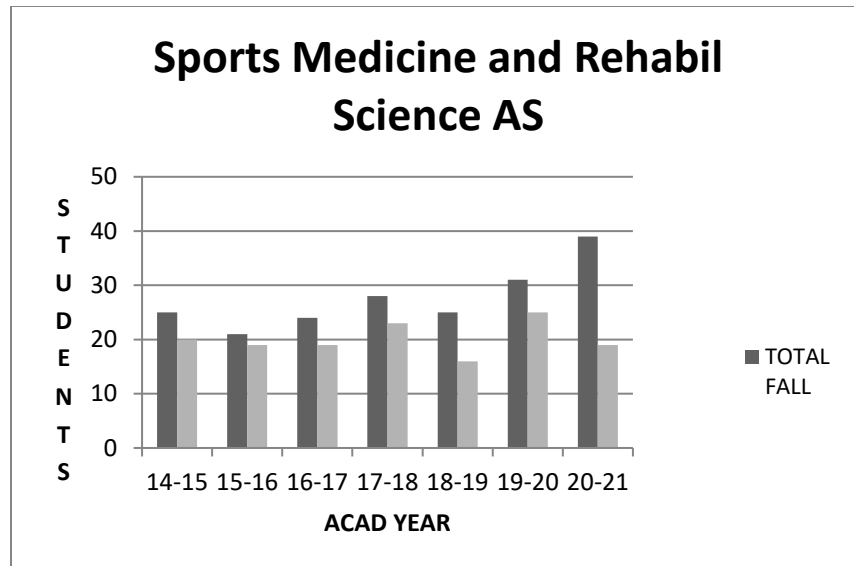
Bachelor of Science in Athletic Training

ENROLLMENT

Sports Medicine and Rehabil Science AS SMAT

Total Enrollment

	ACAD YR	14-15	15-16	16-17	17-18	18-19	19-20	20-21
FALL								
FULL-TIME		21	14	16	24	19	25	32
PART-TIME		4	7	8	4	6	6	7
TOTAL FALL		25	21	24	28	25	31	39
SPRING								
FULL-TIME		16	11	13	15	13	18	11
PART-TIME		4	8	6	8	3	7	8
TOTAL SPRING		20	19	19	23	16	25	19



Enrollment has stayed consistent over the audit period. The program has shown increased interest and has generated an increased number of applications each year. Our admission standards for the program remain high and the highest number of students accepted into the program to this date (2019-20) has been 25 full time and 6 part time.

The program has continued to see a high attrition rate. From 2015-2020, 64% of students have transferred early, changed majors, or did not continue their education at NCC. Attrition rates in CAATE accredited 4 year Athletic Training programs have traditionally been high. The rigors of our program and the unique college student it takes to accel in a Sports Medicine program pushes our attrition rate even higher.

PROGRAM COSTS

ACADEMIC AUDIT FINANCIAL DATA					
2018-19					
Sports Medicine and Rehabilitation Science Degree					
	FY2019	FY2018	FY2017	FY2016	FY2015
Program Income					
Tuition	95,087	131,330	114,316	103,023	112,423
Local Reimb	16,158	21,794	18,756	16,544	18,247
Operating Reimb	37,798	49,762	43,139	30,147	31,603
Stipend Reimb					

Total Income	149,043	202,886	176,211	149,714	162,272
Program Costs					
Direct Costs	67,115	85,262	78,344	65,097	72,552
Indirect Costs	73,786	93,685	76,982	67,727	74,197
Total Costs	140,901	178,947	155,326	132,824	146,749
FTE	19.23	27.15	24.20	22.10	25.13
Income per FTE	7,750	7,472	7,283	6,776	6,456
Cost per FTE	7,327	6,590	6,419	6,011	5,839
Inst Avg Cost per FTE	7,933	7,075	6,703	6,416	6,144
Rank	85 of 133	79 of 126	78 of 132	76 of 129	70 of 119

CURRENT STUDENTS, PROGRAM GRADUATES, & TRANSFERS

In the fall of 2019 we conducted a graduate/transfer survey (See Appendix B) to appraise the quality of our program and assess the preparation our students have when proceeding to their transfer institution. This survey assessed knowledge base, clinical skills, and behavioral skills of transferring students and their comparison to student peers at their new college/university. The survey also examined the ease and logistics of transfer to their new institution.

Our goal was to have 70% of students ‘strongly agree’ with most items on the survey. A summary of the results follows.

Knowledge base:

	SA	A	N	D	SD	Total
The Program helped me acquire the Sports Medicine knowledge necessary to continue my education at my transfer institution	83%	17%				100%
The program aided in my professional development through foundational themes that span health professions	78%	22%				
The program provided me with current and evolving information pertaining to the field of sports medicine and rehabilitation sciences	83%	17%				
The program trained me to use sound judgement while functioning in a health care setting	78%	22%				

The program provided me with a strong background in the anatomy of the human body	89%	11%				
---	-----	-----	--	--	--	--

All categories exceeded our goal of 70% of students ‘strongly agree’ with our knowledge base statement. Graduates and transfers are well prepared in this area to be successful at their travel institution. We also assessed knowledge base in 8 key educational areas within Sports Medicine and Rehabilitation Sciences.

	SA	A	N	D	SD	Total
Prevention and Health Promotion	72%	28%				100%
Clinical Examination and Diagnosis	72%	22%	6%			100%
Acute Care of Injury and Illness	72%	28%				100%
Therapeutic Interventions	50%	33%	17%			100%
Psychosocial Strategies and Referral	50%	33%	17%			100%
Healthcare Administration	44%	33%	17%	6%		100%
Professional Development and Responsibility	83%	17%				100%

On this question, 90% or more of students ‘strongly agreed’ or ‘agreed’ that NCC had prepared them to have a strong knowledge base on four items. Eighty percent of students ‘strongly agreed’ or ‘agreed’ that they had a strong knowledge base in terms of therapeutic interventions, psychosocial strategies and referral, and healthcare administration. These topics are covered at a base level and students will have specific courses on each of these topics at their transfer institution to give them necessary knowledge for practice.

Student Comment Highlights:

- “This program is incredible. I’ve found that i am much more prepared than the students who have been going to ESU for years”
- “This program is outstanding, and I feel like I could have gone right into my Masters program right out of my two years in this program”
- “When I transferred, I was ahead of the curve”

Clinical Proficiency:

	SA	A	N	D	SD	Total
The program provided me with basic injury evaluation skills to build upon as I continue my education	72%	22%	6%			100%
The program trained me to effectively manage emergency situations that commonly occur in active individuals	67%	33%				100%
The program trained me to properly apply heat and cold modalities and educated me about the theory behind them	56%	22%	22%			100%
The program provided me with the clinical skills that are on par with other students who began their education at my transfer institution	78%	22%				100%

Ninety percent or more of the students ‘strongly agreed’ or ‘agreed’ agreed with three of the four items. At least 70% percent ‘strongly agreed’ or ‘agreed’ that the program prepared them to ‘apply heat and cold modalities and the theory behind them.’

Behavioral Skill:

	SA	A	N	D	SD	Total
The program prepared me to communicate effectively within a healthcare setting	67%	33%				100%
The program prepared me to conduct myself in an ethical and professional manner	78%	22%				100%
The program prepared me to manage my time efficiently while functioning in a healthcare setting	72%	28%				100%
The program prepared me to adapt to unusual situations by utilizing problem solving and critical thinking skills	83%	17%				100%

Ninety percent or more of students either ‘strongly agreed’ or ‘agreed’ that the program contributed to their behavioral skills.

Transfer:

	SA	GA	N	GD	SD	NA	Total
The program allowed me to transition smoothly into the four year institution I chose	78%	6%	11%			6%	100%
The program put me on the right track to achieve my degree within four years	83%	11%		6%			100%
The program allowed me to be confident in the knowledge I gained and enabled me to utilize it in my continued education	83%	17%					100%

Ninety percent either ‘strongly agreed’ or ‘agreed’ that the NCC program allowed them to be confident in the knowledge they gained and put them on the right track to achieve their degree within 4 years since they started their education at NCC. Eight four percent ‘strongly agreed’ or ‘agreed’ that NCC’s program put them on the right track to transition smoothly into the four year institution I chose.

Overall Program Quality

	Excellent	Good	Satisfactory	Fair	Poor	
Overall Quality of the Program	89%	11%				100%

CONCLUSIONS & RECOMMENDATIONS

The Sports Medicine and Rehabilitation Sciences Program continues to grow and expand with educational requirements and healthcare changes within the field. Feedback from Program Directors and students has been favorable demonstrating that the program is doing a good job of preparing students for the transition into 4-year institutions. Students are challenged through the rigors of the program which allows them to be more confident in applying their knowledge in real world situations. The program has evolved this past year adding two courses that will help to address deficiencies that were identified through graduate survey results.

The program continues to provide our students with essential knowledge and skills for healthcare professions within Sports Medicine and the Rehabilitation Sciences. Students graduate the program and have the opportunity to take their education many different directions. Our students have taken advantage of that and have gone on to become quality Athletic Trainers, Physical Therapists, Physician Assistants, Occupational Therapists, and other professionals.

The Athletic Training profession continues to grow as their skill set is more and more recognized as an asset in many healthcare settings. The U.S. Bureau of Labor Statistics expects the profession to grow much faster than average from 2019 to 2029 (16%). The NCC Sports Medicine and Rehabilitation Sciences Program is an effective means of facilitating students into the profession who otherwise may not have the opportunity.

Recommendations have been formulated for the program based on the analysis of program outcomes as well as the graduate survey. These quality assessment measurements will continue to guide the direction our program needs evolve in order to meet the advancement in educational standards of the Athletic Trainer and other professions. A summary of recommendations follows as the program continues through the next audit cycle:

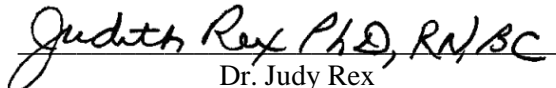
- Incorporate the NATA position statement on Pre-Participation Physical Conditions and Disqualifying Conditions into the curriculum. (SMAT 101)
 - Incorporate student experience with pre-participation physicals at NCC.
 - Reinforce knowledge by integrating into SMAT 245 curriculum.
- Incorporate the NATA consensus statement on Heat Acclimatization into the curriculum. (SMAT 101, SMAT 240) Expand environmental exercise component within Exercise Physiology and Exercise Prescription (SMAT 260)
 - Make this knowledge a mandatory component of clinical hours assessment
- Integrate taping/bracing skills into each course within the curriculum by building in practice time and skill review. Begin to develop taping skills earlier in the curriculum within SMAT 101.
 - Continue to integrate and check competency across multiple courses with more of a focus on integrating the Ankle tape earlier.
- Expand the development of movement evaluation skills within SMAT 202: Kinesiology.
 - Incorporate this information in the biomechanics section of SMAT 260
 - Integrate clinical decision making concepts further into the areas where this content is covered within the program
- Expand the curriculum to incorporate the evaluation process earlier in the course sequence and continue to infuse it into each course.
- Add additional information on the rehabilitation process including modalities into the curriculum within SMAT 230, SMAT 235, and SMAT 280.
- Continue to add practical components that foster the growth of initiative and confidence.

- Integrate a review of knowledge and competencies that will be utilized in clinical experiences at the beginning of SMAT 280.
- Integrate the concepts of Evidence Based Practice into the curriculum and support its development through assignment requirements.
 - Ensure this is integrated into the curriculum in SMAT 101, SMAT 280, and SMAT 245.

Based on the suggestions for improving the course materials and moving some courses and the increased number of students leaving the program from fall 24 admitted, 14 started, after fall only 5 left, the program will be put on hold and no further admissions will occur. The current 5 students are strong and will complete their second year 2022-2023 to completion. Recommend placing the program on hold for this year.



Jim Reidy MS, ATC, CSCS
Program Manager



Dr. Judy Rex
Dean, Allied Health & Sciences

Course Descriptions

SMAT 101 Foundations of Athletic Training and Sports Medicine (Cr3) (3:0)

This course provides an introduction to sports medicine with an emphasis on the profession of athletic training. Students will be introduced to the roles of various disciplines within sports medicine; athletic training as an allied health profession; National Athletic Trainers' Association (NATA) structure and governance; athletic training competencies and proficiencies; education requirements, certification requirements, and continuing education requirements; interpersonal and intrapersonal skills important to uphold the NATA's code of ethics and standard of practice. Restricted to Sports Medicine majors. Coreq.- ENGL101. Offered fall semester only.

SMAT 202 Kinesiology: Applied Anatomy (Cr3) (3:0)

This course is an introduction to the analysis of human movement based on anatomical and mechanical principles. Emphasis is placed on the anatomy and physiology of the muscular, skeletal, and nervous systems and their interaction in human movement and athletic performance. Restricted to Sports Medicine and Massage Therapy majors. Prereqs.- BIOS 254.

SMAT 230 Prevention and Management of Sport and Fitness Injuries (Cr3) (3:0)

This course provides an introduction to the prevention, evaluation and treatments of athletic related injuries. Emphasis is placed on learning musculoskeletal anatomy and recognizing the common signs and symptoms of injuries, illnesses, and disorders commonly seen in the physically active population. Restricted to Sports Medicine majors. Prereqs.- SMAT 101 and BIOS 204, Coreq.- SMAT 235. Offered spring semester only.

SMAT 235 Basic Athletic Training Techniques Lab (Cr1) (0:2)

This course focuses on the application of psychomotor competencies and clinical proficiencies essential to becoming an entry-level Athletic Trainer. This introductory course emphasizes developing skills in injury prevention, injury and illness assessment, and using appropriate terminology and medical documentation to record injury and illness. Restricted to Sports Medicine majors. Prereqs.- SMAT 101 and BIOS 204, Coreq.- SMAT 230. Offered spring semester only.

SMAT 245G Acute Care of Athletic Illness and Injury (Cr3)(3:1)

Students will focus on acute management skills of common injuries and illnesses that active individuals commonly incur. This comprehensive course prepares students to evaluate and stabilize an athlete in a variety of emergency situations. Students will acquire the skills necessary to respond to the following emergencies: catastrophic injury to the head and neck, cessation of breathing and circulation, shock, concussion, general medical emergencies, heat and cold illnesses, internal injuries, and other life threatening or serious injury. Course includes certification on first aid, CPR for the professional rescuer and AED use. Restricted to Sport Medicine/Athletic Training students. Prereq. - ENGL101 and SMAT230. Core: WI. Offered spring semester only.

SMAT 260 Exercise Physiology and Exercise Prescription (Cr3) (3:0)

This course will provide an introduction into concepts of exercise physiology. Students will develop an understanding of the acute physiological and chronic adaptations of the body to exercise. Neuromuscular, metabolic, cardiovascular, hormonal, and respiratory system will be examined. Emphasis will be placed on exercise testing and exercise prescription to prepare students to sit for nationally recognized personal training and health fitness instructor exams. Restricted to Sports Medicine majors. Prereqs.- BIOS 254. Offered spring semester only.

SMAT 280 Measurement and Evaluation of the Lower Extremity (Cr3) (2:2)

This course provides an in-depth examination of the evaluation of common injuries sustained by active

individuals in the lower extremity. Students will gain practical knowledge and skills in orthopedic evaluation of the foot, ankle, shin, knee, thigh and hip areas. All components of a complete and thorough evaluation will be covered including but not limited to: injury history, observation, range of motion, muscle testing and special tests. Emphasis will be placed on the critical thinking and problem solving skills associated with the evaluation process. Restricted to Sports Medicine/Athletic Training students. Prereq. - SMAT230. Offered summer only.

SMAT 285 Athletic Training Clinical Experience Laboratory (Cr2)(0:2:5)

This course will enhance the clinical skills of students through hands-on laboratory instruction and 75 hours of observational field experience. Students will develop knowledge and skills associated with therapeutic modalities, therapeutic exercise, taping and bracing, wound management, injury/illness evaluation, and protective equipment. Emphasis will be placed on the development of psychomotor proficiencies derived from the 2012 Commission on Accreditation of Athletic Training Education (CAATE) Standards learned in previous coursework. Restricted to Sport Medicine Majors. Prereq. - SMAT230. Offered fall semester only.



Clinical Experience Evaluation: Your Clinical Mentor should evaluate each of the following competencies and proficiencies using the following grading scale

- 4- The student demonstrates exceptional skill and knowledge in the completion of the competency/proficiency.
- 3- The student demonstrates good skill and knowledge and does not need direction to complete the competency/proficiency.
- 2- The student demonstrates minimal acceptable skill and knowledge with the competency/proficiency and needs direction.
- 1- The student does not demonstrate the minimal acceptable skill and knowledge associated with the competency/proficiency.
- 0- The student does not demonstrate any basis of skill and knowledge associated with the competency/proficiency.

Competency/Proficiency	Class	Date	Assessment	Comment
Prevention and Health Promotion				
PHP-3: Discuss the mechanism of a common ankle injury	SMAT230			
PHP-5: Discuss the precautions you should take with someone with a congenital disorder	SMAT230			
PHP7: Implement disinfectant procedures following OSHA regulations	SMAT230			
PHP-8, 9: Review your institutions preparticipation physical and identify the necessary components	SMAT101			
PHP-10, 11: Discuss common practices in the prevention of heat illness	SMAT101			

PHP-12, 13, 18: Review your institutions guidelines for exercise in extreme weather	SMAT101			
PHP-23: Select and apply appropriate taping and wrapping procedures	SMAT235			
Ankle___, Achilles___, arch___, shin splint___, turf toe___, hip spica wrap___, wrist, thumb spica___, finger buddy tape___, quad/hamstring wrap___, groin wrap___				
Clinical Examination and Diagnosis				
CE-5: Discuss a the pathomechanics that led to a current injury you are working with	SMAT202			
CE-6: Review a common diagnostic test and their role in the diagnosis process	SMAT230			
CE-7, 19: Discuss the participation restrictions of a current injury	SMAT230			
CE-13: Obtain a thorough medical history	SMAT230			
CE-15: Discuss the on the field evaluation process and the signs and symptoms of emergent conditions	SMAT285			
CE-17, 18: Use clinical reasoning skills and differential diagnosis to formulate an appropriate assessment	SMAT230			
CE-20: Discuss and utilize standard techniques and procedures for clinical examination of the foot/ankle.	SMAT230			
a: history taking				

b: inspection/observation				
c: palpation				
d: functional assessment				
e: special tests				
f: neurological assessment				
h: circulatory assessment				
CE-21: Assess and interpret findings from a clinical examination of the foot/ankle	SMAT230			
a: posture, gait, movement patterns				
b: palpation				
c: muscle function assessment				
d: quantity and quality of osteokinematic motion				

e: capsular and ligamentous stress testing				
f: joint play (arthrokinematics)				
g: special tests				
h: neurologic function				
CE-22: Discuss when referral of the patient is necessary	SMAT230			
Acute Care of Injuries and Illnesses				
AC-4: Perform a primary and secondary survey	SMAT230			
AC-6, 7: Obtain and monitor signs of normal body function. Pulse, BP, respiration, pain. Differentiate between normal and abnormal	SMAT230 SMAT235			
AC-19, 20: Discuss the proper protocol for management of external hemorrhage	SMAT285			
AC-21, 22: Use appropriate sanitation methods and universal precaution in the treatment of open wounds	SMAT285			
AC-34: Discuss the importance of monitoring a patient after head injury	SMAT230			
AC-37: Apply an appropriate splint to an ankle injury	SMAT285			

AC-39: Select and apply the appropriate ambulatory aid	SMAT235			
AC-43: Instruct a patient in home care and self treatment	SMAT230			
Therapeutic Interventions				
TI-1: Discuss the inflammatory response and intervention	SMAT235			
TI-11: Design hot and cold therapeutic interventions to meet treatment goals	SMAT230			
a. identify indications, contraindications and precautions				
b. position and prepare the patient				
c. describe expected effects and adverse reactions				
e. apply the intervention properly				
f. reassess the patient to determine the outcome of the treatment				
Psychosocial Strategies and Referral				
PS-3: Discuss how psychosocial considerations effect clinical decision making	SMAT101			
PS-6: Explain the importance of educating patients	SMAT230			
Additional Meaningful Experiences				

Category	Unsatisfactory	Below Average	Average	Good	Outstanding	Comment
Student is dependable						
Student looks professional and follows the dress code						
When communicating, the student conducts themselves in a professional manner						
Student stays within the scope of their knowledge						
Student takes initiative when a task needs to be completed						
Student is confident and trusts their knowledge						
Overall assessment of this student						

Clinical Mentor Signature _____

Date _____

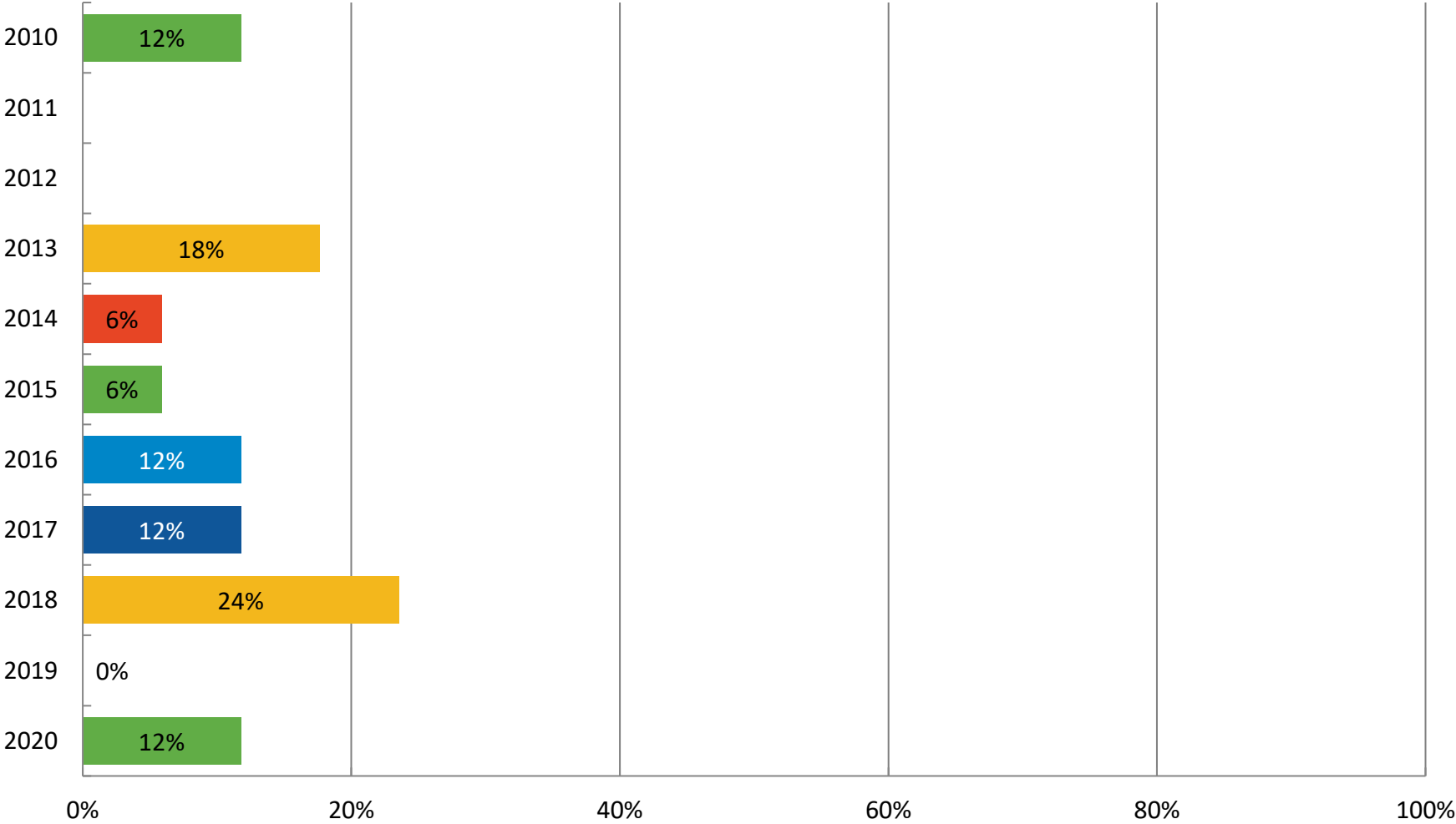
Student Signature _____

Date _____

Appendix B

What year did you graduate or transfer from Northampton Community College?

(N=17)

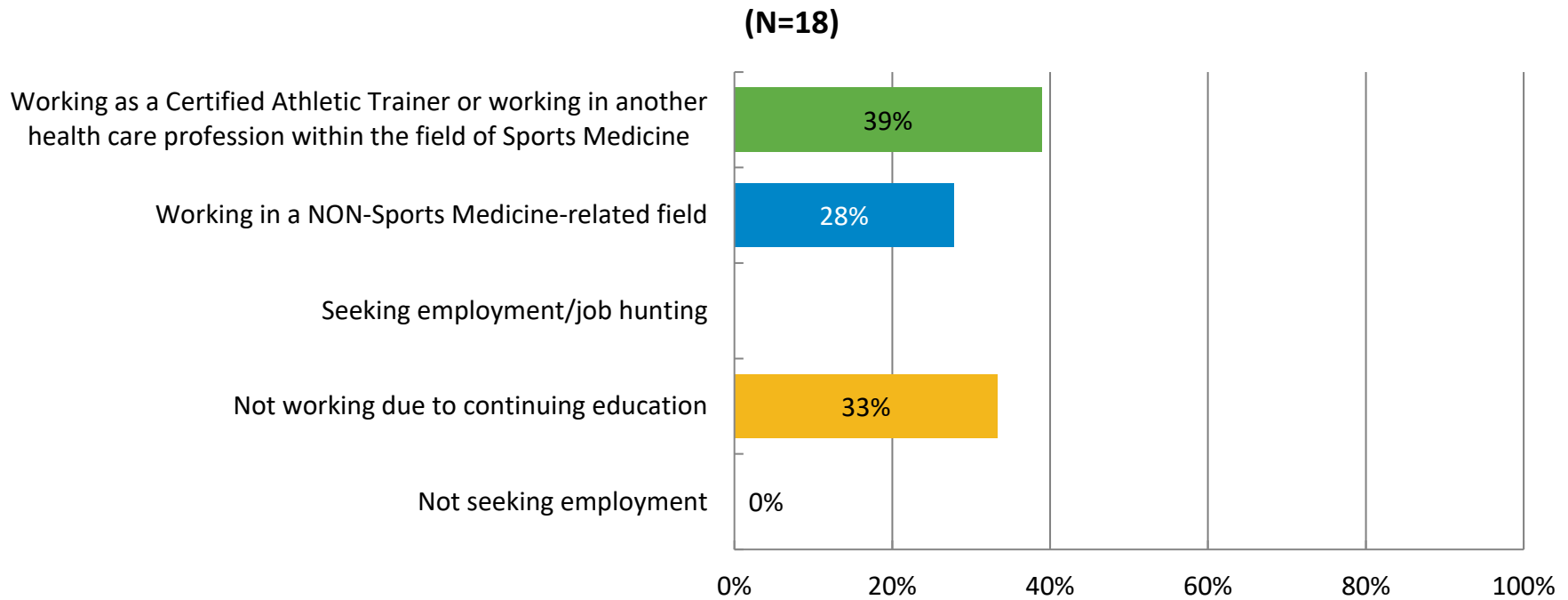


Responses	Count	Percentage
2010	2	12%
2011	0	0%
2012	0	0%
2013	3	18%
2014	1	6%
2015	1	6%
2016	2	12%
2017	2	12%
2018	4	24%
2019	0	0%
2020	2	12%
Total Responses	17	

What is the name of the institution you transferred to?

Response No	Answer text
1	East Stroudsburg University
2	East Stroudsburg University of Pennsylvania
3	East Stroudsburg University
4	Moravian College
5	East Stroudsburg University
7	Moravian College
8	East Stroudsburg University
9	Moravian College
10	East Stroudsburg University
11	Moravian college
12	East Stroudsburg University
13	East Stroudsburg University
14	Moravian College
15	East Stroudsburg University
16	Moravian College
17	East Stroudsburg University
20	East Stroudsburg University

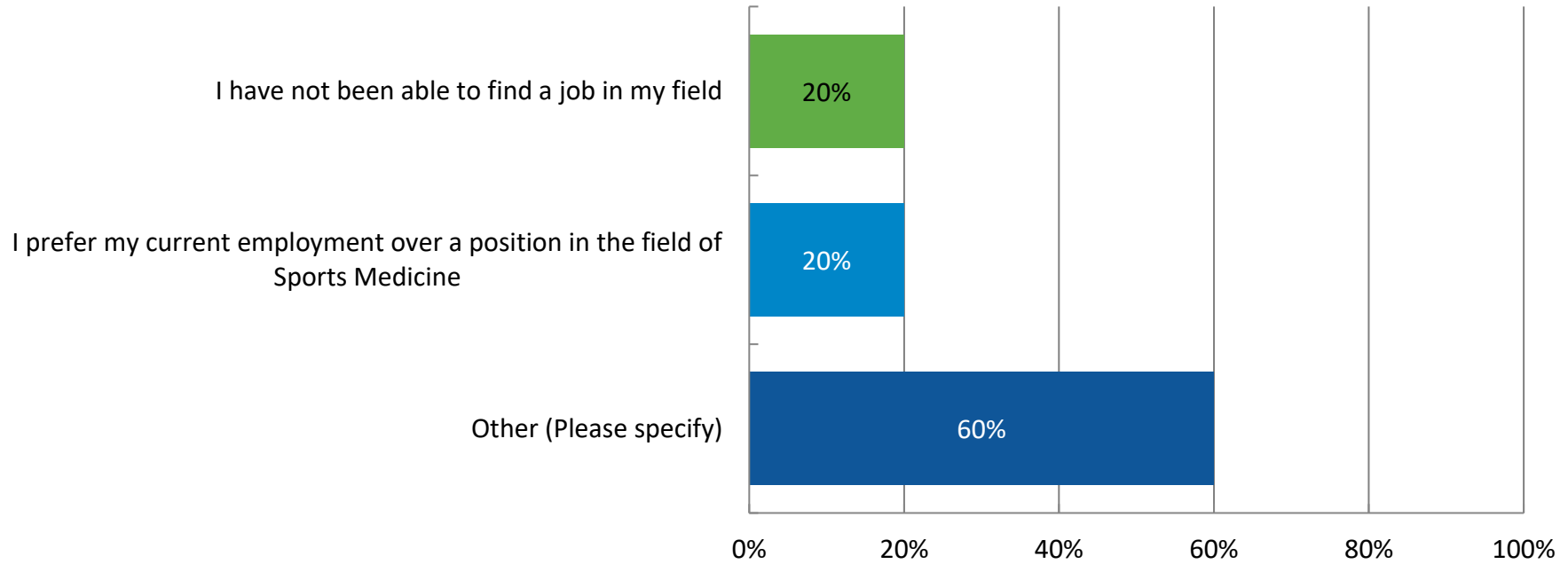
What is your current employment status?



Responses	Count	Percentage
Working as a Certified Athletic Trainer or working in another health care profession within the field of Sports Medicine	7	39%
Working in a NON-Sports Medicine-related field	5	28%
Seeking employment/job hunting	0	0%
Not working due to continuing education	6	33%
Not seeking employment	0	0%
Total Responses	18	

What is your primary reason for not working or for not working in a position related to the field of Sports Medicine?

(N=5)



Responses	Count	Percentage
I have not been able to find a job in my field	1	20%
I prefer my current employment over a position in the field of Sports Medicine	1	20%
Other (Please specify)	3	60%
Total Responses	5	

What is your current position?

Response No	Answer text
1	Athletic Trainer
2	Clinical Athletic Trainer and Surgical 2nd assistant
5	Secondary School Assistant Athletic Trainer
7	PCA at St Luke's Hospital
8	Customer service representative
10	Certified Athletic Trainer, Emmaus High School, Lehigh Valley Health Network
12	Certified Athletic Trainer and Early Intervention Specialist
13	Route Sales Represenative
14	Nurses Aide
15	high school athletic trainer
20	Athletic Trainer

Employer Information:

Name of employer	St Luke's Health Network
Street 1	801 Ostrum St
Street 2	
City	Bethlehem
State	Pennsylvania
ZIP	18015
Hours worked per week	

Name of employer	St Lukes University Health Network
Street 1	801 ostrum St
Street 2	
City	Bethlehem
State	Pennsylvania
ZIP	18015
Hours worked per week	

Name of employer	St. Luke's University Health Network
------------------	--------------------------------------

Street 1	77 S Commerce Way
Street 2	
City	Bethlehem
State	Pennsylvania
ZIP	18017
Hours worked per week	About 40hrs

Name of employer	St Luke's Hospital Anderson campus
Street 1	1872 St Luke's Blvd
Street 2	
City	Easton
State	Pennsylvania
ZIP	18045
Hours worked per week	

Name of employer	Lehigh Valley Health Network
Street 1	2100 Mack Blvd
Street 2	
City	Allentown
State	Pennsylvania
ZIP	18105
Hours worked per week	

Name of employer	ATI Physical Therapy
Street 1	1000 Willowbrook Rd
Street 2	
City	Northampton
State	Pennsylvania
ZIP	18067
Hours worked per week	

Name of employer	Frito-Lay
Street 1	5 Danforth Drive
Street 2	

City	Easton
State	Pennsylvania
ZIP	18064
Hours worked per week	

Name of employer	St. Luke's University Health Network
Street 1	1872 St. Luke's Blvd
Street 2	
City	Easton
State	Pennsylvania
ZIP	18045
Hours worked per week	

Name of employer	Haywood Regional Medical Center
Street 1	262 Leroy George drive
Street 2	
City	Clyde
State	North Carolina
ZIP	28721
Hours worked per week	

Name of employer	Lehigh Valley Health Network
Street 1	Cedar Crest Blvd.
Street 2	
City	
State	
ZIP	
Hours worked per week	

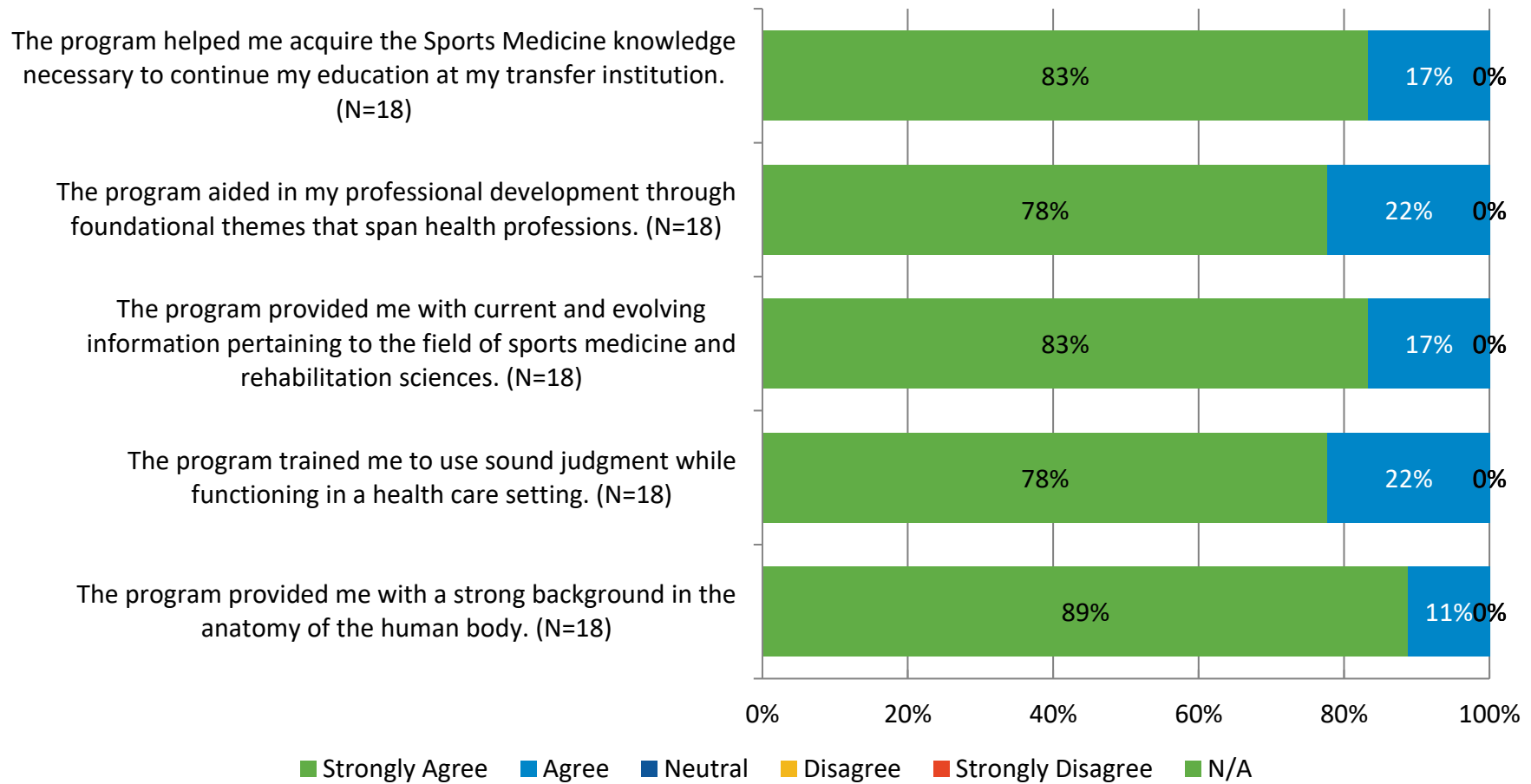
Name of employer	St Luke's University Health Network
Street 1	
Street 2	
City	
State	

ZIP	
Hours worked per week	

Please list any certifications you have obtained in your chosen professional field in the time since you graduated or transferred from NCC. If you have not obtained any certifications, please answer "N/A".

Response No	Answer text
1	N/A
2	LAT, ATC, OTC
3	N/A
4	Basic Life Support, American Red Cross NFHS Concussion in Sports Stop the Bleed
5	Licensed Athletic Trainer Certified Athletic Trainer
7	N/A
8	PA State Athletic Trainer License BOC Certified Athletic Trainer
9	Concussion Training, Stop the Bleed
10	MS, LAT, ATC, HGP-I
11	N/a
12	N/A
13	D.O.T. Driving Certification
14	N/A
15	N/a
17	N/A
20	n/a

Please answer the following according to your level of agreement:

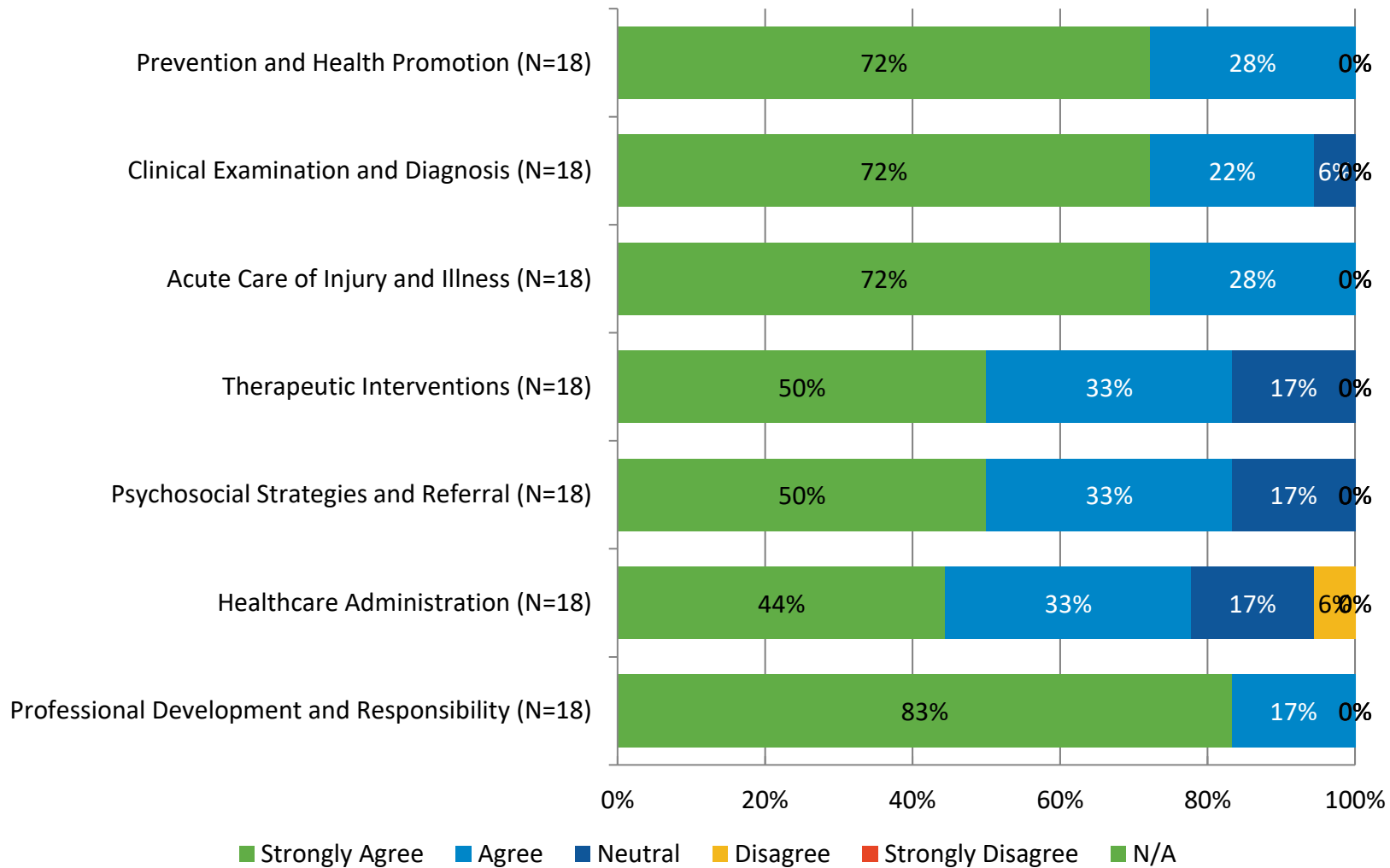


Please answer the following according to your level of agreement:

Q9. Please answer the following according to your level of agreement:

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
(a)	The program helped me acquire the Sports Medicine knowledge necessary to continue my education at my transfer institution.	15	3	0	0	0	0	18
		83%	17%	0%	0%	0%	0%	
(b)	The program aided in my professional development through foundational themes that span health professions.	14	4	0	0	0	0	18
		78%	22%	0%	0%	0%	0%	
(c)	The program provided me with current and evolving information pertaining to the field of sports medicine and rehabilitation sciences.	15	3	0	0	0	0	18
		83%	17%	0%	0%	0%	0%	
(d)	The program trained me to use sound judgment while functioning in a health care setting.	14	4	0	0	0	0	18
		78%	22%	0%	0%	0%	0%	
(e)	The program provided me with a strong background in the anatomy of the human body.	16	2	0	0	0	0	18
		89%	11%	0%	0%	0%	0%	

NCC has provided me with a strong knowledge base in the following educational content areas that is equal to the knowledge level of students at my transfer institution:



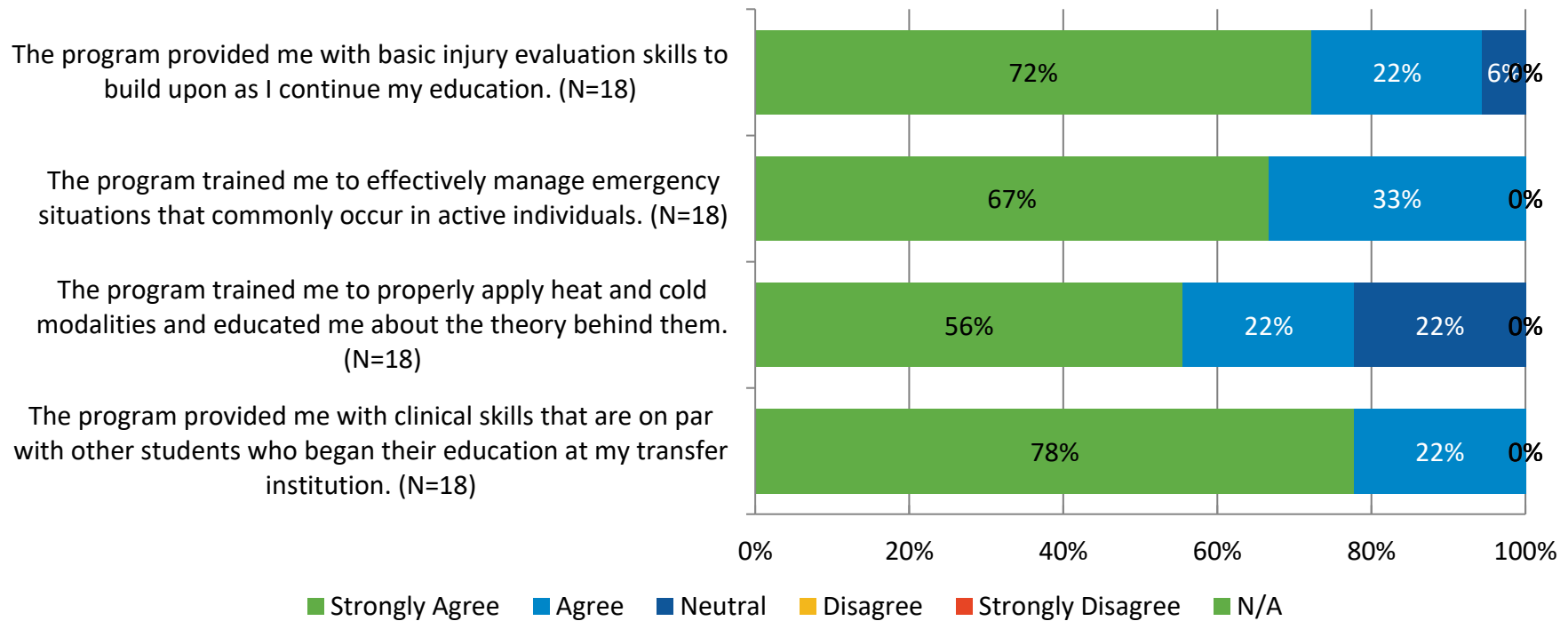
NCC has provided me with a strong knowledge base in the following educational content areas that is equal to the knowledge level of students at my transfer institution:

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
(a)	Prevention and Health Promotion	13	5	0	0	0	0	18
		72%	28%	0%	0%	0%	0%	
(b)	Clinical Examination and Diagnosis	13	4	1	0	0	0	18
		72%	22%	6%	0%	0%	0%	
(c)	Acute Care of Injury and Illness	13	5	0	0	0	0	18
		72%	28%	0%	0%	0%	0%	
(d)	Therapeutic Interventions	9	6	3	0	0	0	18
		50%	33%	17%	0%	0%	0%	
(e)	Psychosocial Strategies and Referral	9	6	3	0	0	0	18
		50%	33%	17%	0%	0%	0%	
(f)	Healthcare Administration	8	6	3	1	0	0	18
		44%	33%	17%	6%	0%	0%	
(g)	Professional Development and Responsibility	15	3	0	0	0	0	18
		83%	17%	0%	0%	0%	0%	

Comments:

Response No	Answer text
3	This program is incredible. I've found that i am much more prepared than the students who have been going to ESU for years
4	Outstanding program
7	None
9	This program is outstanding, and I feel like I could have gone right into my Masters program right out of my two years in this program and I would have been better prepared than I was after graduating from Moravian.
12	When I transferred, I was ahead of the curve

Please answer the following according to your level of agreement:



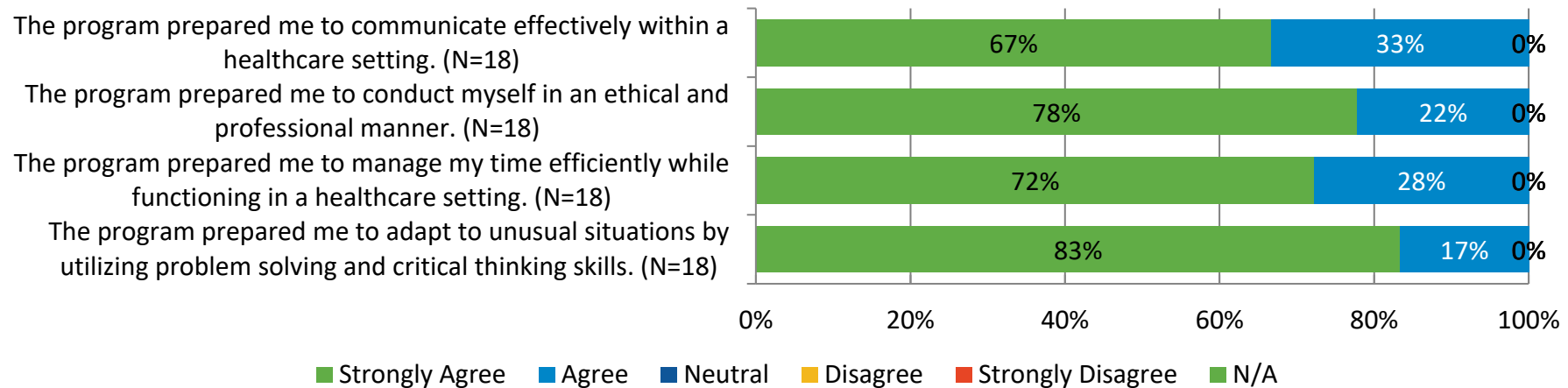
**Please answer the following according to your level of agreement:
Q12. Please answer the following according to your level of agreement:**

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
(a)	The program provided me with basic injury evaluation skills to build upon as I continue my education.	13	4	1	0	0	0	18
		72%	22%	6%	0%	0%	0%	
(b)	The program trained me to effectively manage emergency situations that commonly occur in active individuals.	12	6	0	0	0	0	18
		67%	33%	0%	0%	0%	0%	
(c)	The program trained me to properly apply heat and cold modalities and educated me about the theory behind them.	10	4	4	0	0	0	18
		56%	22%	22%	0%	0%	0%	
(d)	The program provided me with clinical skills that are on par with other students who began their education at my transfer institution.	14	4	0	0	0	0	18
		78%	22%	0%	0%	0%	0%	

Comments:

Response No	Answer text
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Please answer the following according to your level of agreement:



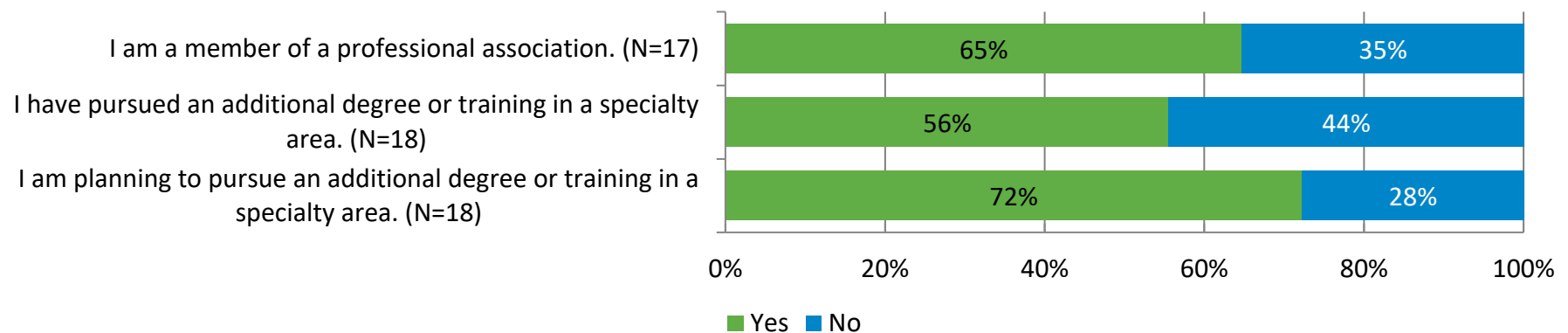
Please answer the following according to your level of agreement:
Q14. Please answer the following according to your level of agreement:

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
(a)	The program prepared me to communicate effectively within a healthcare setting.	12	6	0	0	0	0	18
		67%	33%	0%	0%	0%	0%	
(b)	The program prepared me to conduct myself in an ethical and professional manner.	14	4	0	0	0	0	18
		78%	22%	0%	0%	0%	0%	
(c)	The program prepared me to manage my time efficiently while functioning in a healthcare setting.	13	5	0	0	0	0	18
		72%	28%	0%	0%	0%	0%	
(d)	The program prepared me to adapt to unusual situations by utilizing problem solving and critical thinking skills.	15	3	0	0	0	0	18
		83%	17%	0%	0%	0%	0%	

Comments:

Response No	Answer text
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Please select Yes or No:



Please select Yes or No:

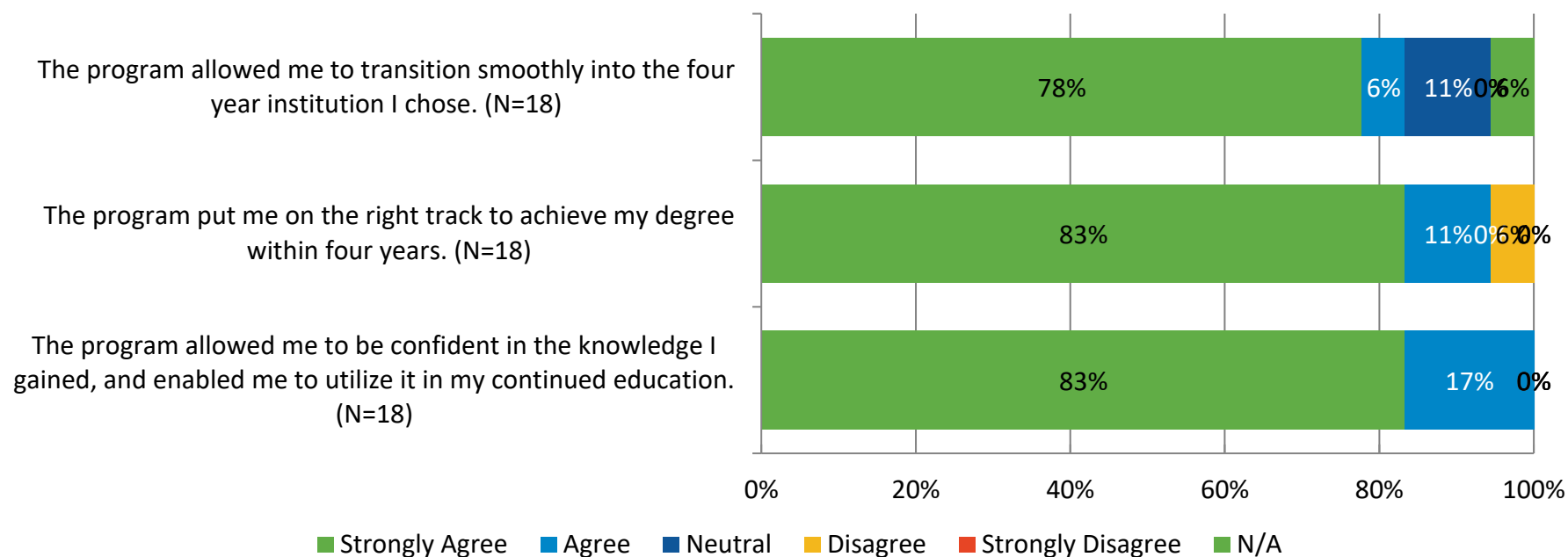
Q16. Please select Yes or No:

		Yes	No	Total
(a)	I am a member of a professional association.	11	6	17
		65%	35%	
(b)	I have pursued an additional degree or training in a specialty area.	10	8	18
		56%	44%	
(c)	I am planning to pursue an additional degree or training in a specialty area.	13	5	18
		72%	28%	

Comments:

Response No	Answer text
2	Completed a CAATE accredited residency For ATCs at St Luke's, and am considering the Moravian college DAT/ MBA program
4	Currently obtaining my Masters of Science in Athletic Training
12	Will go back to school for physical therapy soon

Please answer the following according to your level of agreement:



Please answer the following according to your level of agreement:

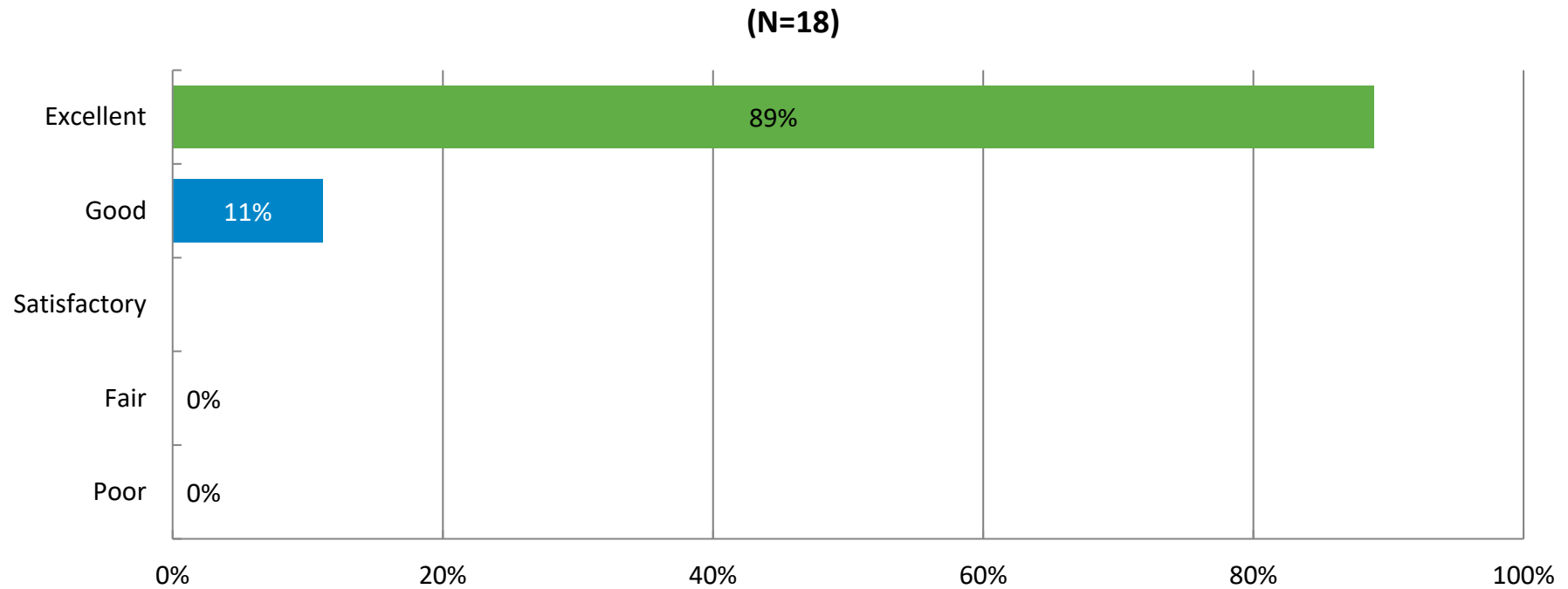
Q18. Please answer the following according to your level of agreement:

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total
(a)	The program allowed me to transition smoothly into the four year institution I chose.	14	1	2	0	0	1	18
		78%	6%	11%	0%	0%	6%	
(b)	The program put me on the right track to achieve my degree within four years.	15	2	0	1	0	0	18
		83%	11%	0%	6%	0%	0%	
(c)	The program allowed me to be confident in the knowledge I gained, and enabled me to utilize it in my continued education.	15	3	0	0	0	0	18
		83%	17%	0%	0%	0%	0%	

Comments:

Response No	Answer text
8	It took me 6 years to get my degree, but that was largely my doing because of the choices I made regarding my enrollment at NCC.
12	I was able to complete my degree at ESU within 3 semesters instead of 4
16	The knowledge that I gained at NCC in the Sports Medicine program would have been very beneficial to me if I chose a different transfer school. I was confident in myself and what I learned and was ready to grow.

Please rate and comment on the OVERALL quality of the extent to which NCC prepared you to transfer into your transfer program:



Responses	Count	Percentage
Excellent	16	89%
Good	2	11%
Satisfactory	0	0%
Fair	0	0%
Poor	0	0%
Total Responses	18	

Comments:

Response No	Answer text
12	I was well prepared by the time I transferred
16	My professor James Reidy was the reason I was so successful at NCC. He, along with his colleagues, gave us students everything we needed to succeed at NCC. They each brought something different to the classroom which we were eager to learn.

Please identify three strengths of the Sports Medicine and Rehabilitation Sciences Program.

Response No	Answer text
2	The NCC program is robust in the sense that it does eliminate weak candidates for potential 4 year programs. The program at NCC is comprehensive and difficult in a delivered fashion to ensure that successful graduates are ready to take on, and excel at a 4 year college. It does provide heavy base knowledge of Sports Medicine, physiology, anatomy, and pathology. Additionally, students will learn how to be self-reliant and efficient regarding their studies and become resourceful with how to acquire knowledge, and information for the required projects.
3	Application of knowledge. They not only teach very well but they put your knowledge to use in practical situations very well. They prepare their sports medicine students incredibly well for success. I cannot praise this program enough. The entire sports medicine education staff was incredibly supportive and helpful.
4	This program prepared me in such an outstanding way. The courses I took were nothing but beneficial to continue my education. I left with an incredible amount of knowledge along with a clinical experience.
5	1. The program was academically challenging and demanding - more so than what I encountered at my transfer institution, East Stroudsburg University. 2. The program was small and allowed for more individualized, one-on-one attention. 3. The professors presented current, useful knowledge and exposed us to new athletic training research.
8	Three strengths of the SMAT Program would probably be the quality of the instruction/courses, the helpfulness of the professors, and the congruency with the transfer institutions over the first 2 years of courses.

10	Easy transfer into 4 year program Caring and knowledgeable professors Lower tuition cost than first two years at 4 year program
12	It was challenging but it helped retain the information well, you always had to be prepared which applied to how it was going to be once you were certified, having the right resources also helped a lot
14	Hands on Challenging but doable Good preparation for continuing at another institution
15	Clinical proficiency More prepared as a transfer then the non transfers Staff was excellent
16	The professors and the knowledge and experience they each brought to the classroom, the hands-on learning environment and the labs. The labs are key to applying what you are learning in your lectures.
20	Great Staff

Please make three suggestions to further strengthen the Sports Medicine and Rehabilitation Sciences Program.

Response No	Answer text
2	Allow funding for additional staff to help teach the robust program already offered. Try to incorporate the sports medicine program more broadly into the college culture, with potential involvement with general population students in addition to the athletes.
3	Streamline the clinical clearance process. My recordtacker is incredible obsolete. More facilities for the sports med program. We had labs in very small classrooms with individual desks, this is not conducive for a hands on procession of education, such as BLS/CPR skills or taping skills and even physical evaluation skills. Also make the program more rigorous. Make it as selective as the nursing program, sports medicine is a competitive field and i think NCC could do a better job of holding their students to a higher standard.
4	Adding a modalities course to the criteria.
5	1. Bring in more speakers to talk about real-life athletic training experiences (not just emergency scenarios, but day-to-day duties etc...) 2. I really wish that at some point during my athletic training education, there had been a few days devoted strictly to learning about different positions within your major sports teams. Yes, everyone has some knowledge concerning either the sports they played or followed, but I think it would have been helpful to learn about the physical demands different positions place on athletes. 3. Keep the majority of exams as short-answer/open-ended. Multiple choice allows for significantly less study. I hardly ever saw multiple choice test in the program and I know that it made me study so much harder and know the information better.
8	Three suggestions to further strengthen the program are to include more clinical rotations even so if they may be limited by observation only. Second, consider adding a course that promotes O&A and professional networking (especially). Lastly, incorporate program specific tutors through the learning center.
10	Highlight programs success Continue to build affiliations with other 4/5 year programs Keep up the standards that have been set

16	I feel taking both Kinesiology and AP I together would be beneficial and having more lab time.
20	N/A

What qualities/skills/knowledge (if any) were expected of you upon resuming classes at your transfer institution that were not included in NCC's Sports Medicine and Rehabilitation Sciences Program?

Response No	Answer text
2	There were no quality, skills, or knowledge that were abnormal or different at my transfer school. The qualities, skills, and knowledge developed at NCC were sufficient, and often times superior from expectations required at my transfer school.
3	There really wasn't much. Just advanced emergency care. And maybe more therapeutic modalities knowledge.
4	N/A NCC had prepared me in all of these areas while transferring.
5	I don't remember feeling like I was behind in any area of my studies once I got to ESU. I was well-prepared and equipped to take on my next two years at my transfer college.
8	None.
10	One pre internship (50 hours) had to be retaken even though it was completed at NCC
16	I would have had to wait until graduate school to apply what I learned at NCC however, one positive was that I was ahead of the other students with all that I already learned and applied.
20	N/A

Please provide any comments/suggestions that you believe would help to better prepare future graduates from the Sports Medicine and Rehabilitation Sciences Program.

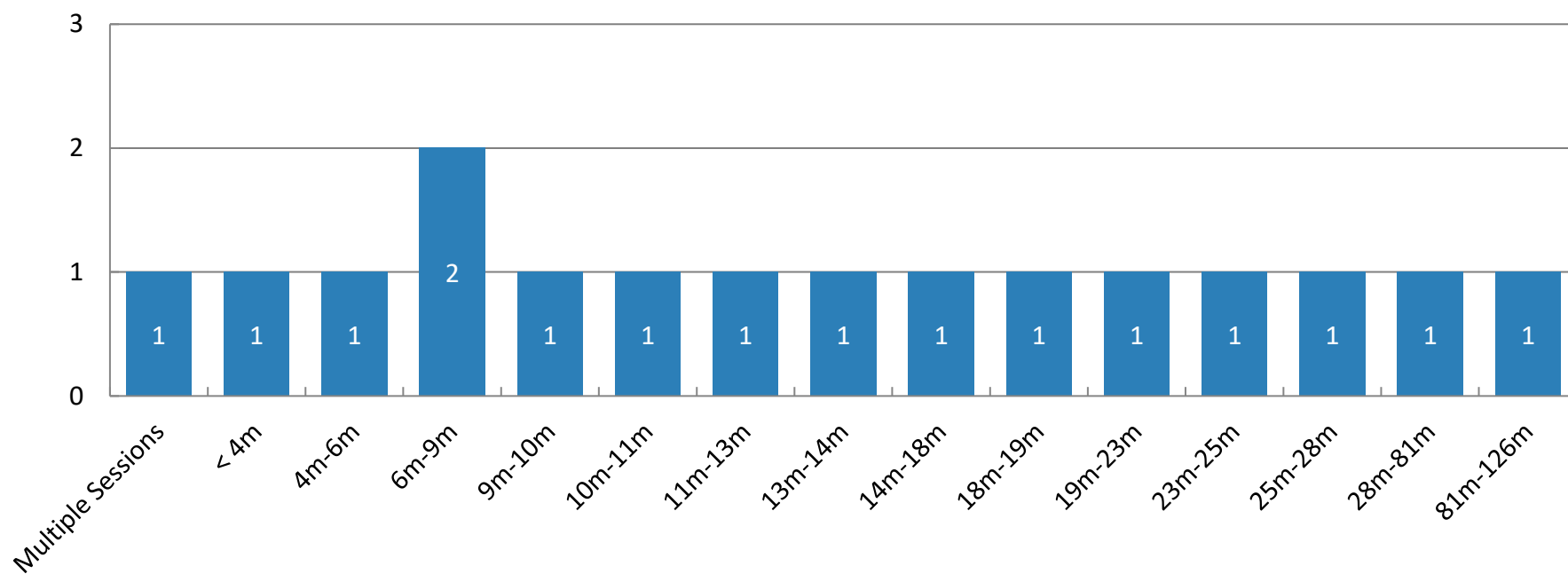
Response No	Answer text
2	Jim Reidy is the director for the sports medicine athletic training residency at St Luke's. Early promotion of non-traditional settings for athletic trainer should be emphasized.
3	This degree is the swiss army knife of degrees. The potential with this degree is unmatched. There are so many paths you can take with the completion of this program.
4	Stay organized!
5	The fundamental skills you learn at NCC are critical in nearly every future athletic training class you will need to take at your transfer institution. You may not have the benefit of small classes depending on where you transfer, so don't take that for granted.
10	Know what your getting into prior to transferring into 4/5 year program
12	I think it is a great program and will get you ready before transferring to any institution
20	N/A

On what date did you sit for your profession's certification exam?

Response No	Answer text
2	Jan 2015
3	i will sit for it in 2 years
4	Spring 2022
5	April, 2018
8	08/03/2019
10	April 2015
12	February 9 2019
20	April 2012

Time to complete the survey

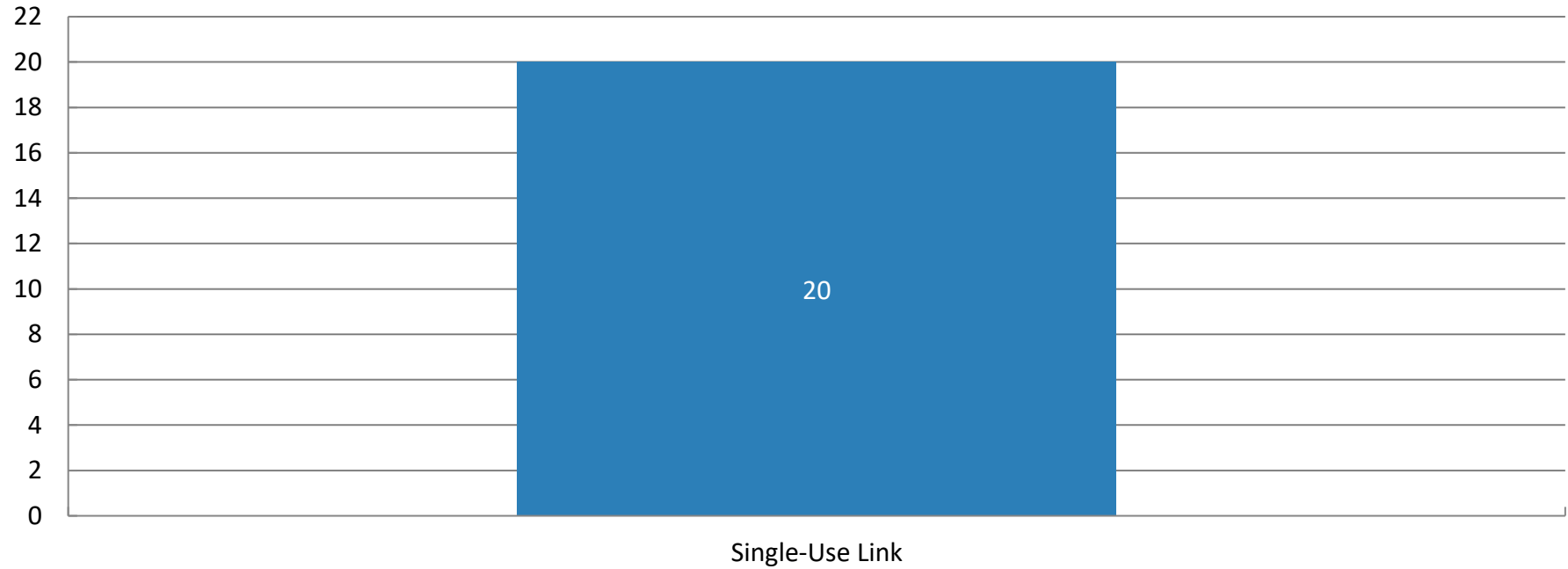
(N=16)



Field	Min	Max	Mean	Standard Deviation	Responses	Sum
Duration (in seconds)	194.00	4137453.00	260049.00	1001143.14	16	4160784.00

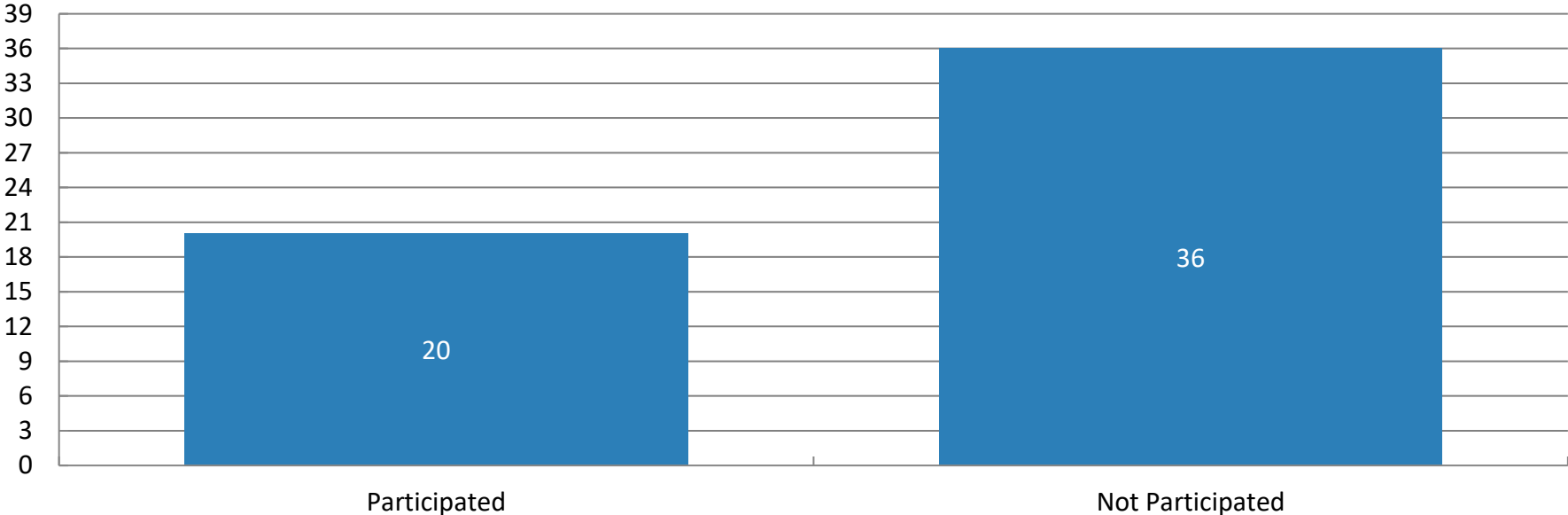
Channel by which participant accessed the survey

(N=20)



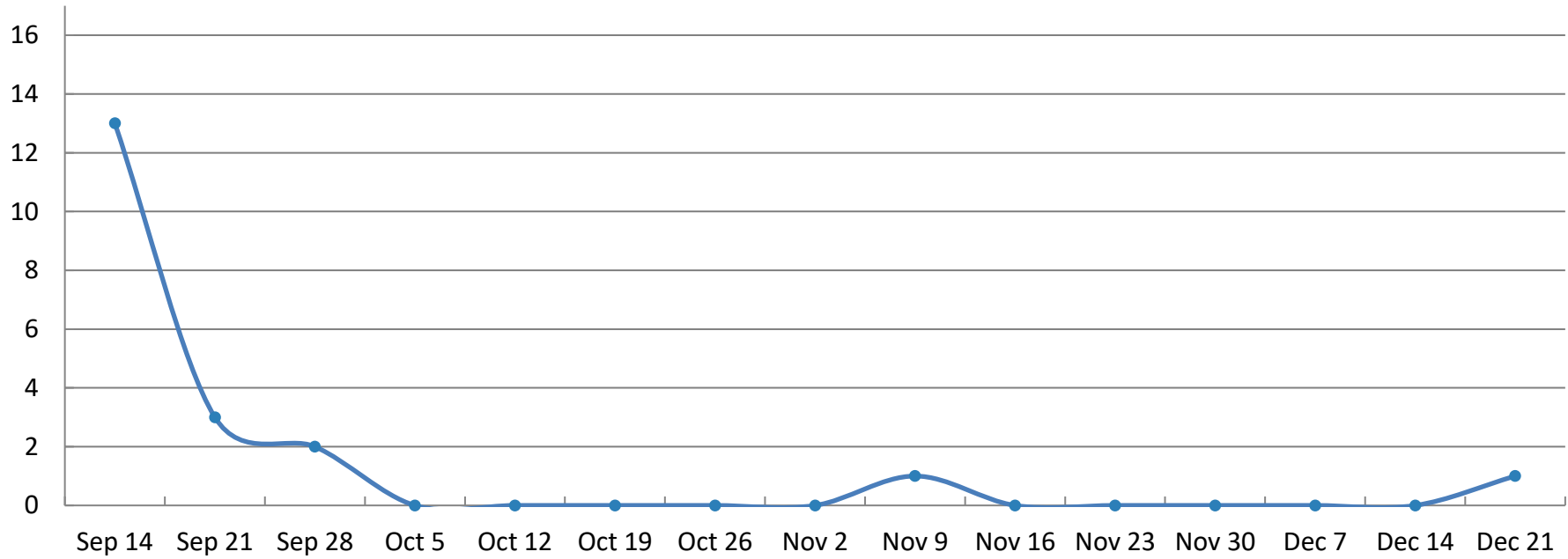
Response rate for the survey

(N=56)



Participation trend over time

Frequency: Weekly (N=20)



Northampton Community College
School of Health Sciences &
Education

Sports Medicine & Rehabilitation Sciences
External Audit Associate in Science

A program review for the Northampton Community College Sports Medicine & Rehabilitation Sciences program was conducted in September and October 2021. This program review occurred by way of virtual and phone meetings conducted with one student currently enrolled in the Sports Medicine & Rehabilitation Sciences program, two faculty members employed to teach in the program, and the Dean of Allied Health & Sciences who oversees the program.

Additionally, a written narrative for the 2015-2020 program audit was provided to the external reviewer for assessment. Unfortunately, due to the ongoing COVID-19 global pandemic, no on-site meetings or tours of facilities were conducted.

The goal of the Sports Medicine & Rehabilitation Sciences program at Northampton Community College is to prepare students to transfer to four-year institutions in order to pursue a variety of higher education pathways that lead to careers in Athletic Training, Occupational Therapy, Physical Therapy, and Exercise Science. The program allows students to gain foundational knowledge and coursework that will prepare them for advanced education at the undergraduate and graduate levels. The coursework in the program involves a great deal of hands-on learning and application of clinical knowledge and skills. The program emphasizes clinical application of skills in the areas of injury prevention, evaluation, treatment, and rehabilitation and features an internship where students apply the skills and knowledge they have learned in the program directly to clinical practice.

The history of the program is rooted in the field of Sports Medicine. Initially, the program provided a bridge to undergraduate programs in Athletic Training, particularly serving as a 2+2 program with the Bachelor of Science program in Athletic Training at East Stroudsburg University (ESU). The coursework in the program, at this time, was focused on preparing students to seamlessly enter the ESU program and graduate in two years. In 2014, the Athletic Training profession began the process of transitioning the entry-level degree to the master's level. This process will become fully implemented in 2024 with the closure of all baccalaureate programs in Athletic Training. As a result of this change and recommendations from the external reviewer in 2015, the Sports Medicine & Rehabilitation Sciences program at Northampton began changing the curriculum to reflect preparation for study in a more diverse array of healthcare fields, including the addition of Occupational Therapy and Physical Therapy. While this broadening of healthcare perspectives provided for a more diverse student enrollment in the program, the focus of the program remained rooted in the mastery of clinical proficiencies related to practice as an Athletic Trainer. However, students completing the program at Northampton Community College were more frequently transferring to four-year institutions to complete their undergraduate degree in pre-professional programs like Health Sciences or Exercise Science. These programs focus student learning goals around acquisition of foundational knowledge in areas such as Anatomy & Physiology, Biomechanics, Kinesiology, Exercise Physiology, Nutrition, and the traditional lab sciences (Biology, Chemistry, and Physics). These pre-professional programs deemphasize teaching clinical skills in favor of building the foundational knowledge required to develop successful clinical practice during the professional education programs that lead to licensure as a healthcare provider. As such, students complete hands-on learning related more to laboratory practices and less focused on patient care. Clinical experiences in these pre-professional programs are observational only and focus on students gaining in-depth exposure to their desired field of study without the inclusion of hands-on patient

care. The focus on observation versus hands-on practice during these clinical experiences is largely driven by licensure laws within the various healthcare professions that state only students enrolled in professional programs leading to licensure as a healthcare professional may practice under the supervision of a licensed healthcare professional.

The curriculum of the Sports Medicine & Rehabilitation Sciences program is comprehensive and includes courses building from Foundations of Sports Medicine & Rehabilitation Sciences to Measurement and Evaluation and Acute Care of Injury and Illness. This curriculum design made sense when students were transferring from NCC to four-year undergraduate programs that awarded a degree in Athletic Training, such as ESU. There was a need to prepare students in the Sports Medicine & Rehabilitation Sciences program to have hands-on skills that would match students attending four-year schools that introduced clinical skills during the sophomore year. However, with the transition of Athletic Training to a master's degree entry-point, it is no longer necessary or appropriate to have students learning and practicing clinical skills during pre-professional programs. Rather, these pre-professional programs should focus students' learning on didactic materials related to building a solid base in foundational areas such as Anatomy, Physiology, Kinesiology, Biomechanics, Medical Terminology, Nutrition, and Exercise Physiology. Students also expressed an interest in career exploration early in the program and ongoing career counseling during completion of the program.

To this end, I believe the curriculum could be strengthened with the following changes:

- Move the Anatomy & Physiology sequence (BIOS 204 and BIOS 254) to the first year of the program to serve as prerequisite knowledge for advanced courses such as SMAT 202 and SMAT 230
- Move the SMAT 202 Kinesiology: Applied Anatomy course to after the Anatomy & Physiology sequence is completed
- Focus the content of SMAT 101: Foundations of Medicine and Rehabilitation Sciences Techniques on topics such as career exploration, medical ethics, documentation, patient-centered care, communication skills and patient interviewing techniques, cultural competency, interprofessional practice, etc. as opposed to teaching and practicing hands-on skills
- Consider renaming SMAT 101 as Introduction to Health Professions to indicate the change in program focus from Athletic Training to more global Health Professions and the movement away from clinical skill acquisition to exploration of healthcare fields
- Replace SMAT 235: Basic Sports Medicine and Rehabilitation Sciences Techniques Lab with a course in Medical Terminology, as this is a common requirement for a degree in Health Sciences and is a graduate school prerequisite
- Replace the SMAT 280: Measurement and Evaluation of the Lower Extremity course with a course that focuses on Biomechanics
- Remove the clinical experience hours from the SMAT 280: Measurement and Evaluation of the Lower Extremity course and replace this requirement with a shorter observation experience in the student's profession of choice
- Allow CHEM 120: General Chemistry I to be substituted for CHEM 135: Chemistry for Life for students interested in pursuing a career in Physical Therapy, as a two-course sequence of Chemistry is required for Physical Therapy
- Focus the content of SMAT 240G: Acute Care of Injury and Illness on skills such as Cardiopulmonary Resuscitation (CPR), First Aid, and Life-Savings Skills such as AED, EpiPen, Narcan, etc. that can be provided by a layperson
- Add a Basic Biology course to the curriculum, as Basic Biology is now a requirement for graduate programs in Athletic Training and Physical Therapy

Interviews with program faculty and students indicated the need for additional student resources for the program. Suggested improvements included additional student support

from the writing center to improve students' basic writing skills, additional library resources to enhance the expanding focus on evidence-based practice within the program, and the addition of a study lab to allow students to review class materials and practice clinical skills (should these continue to be a part of the educational program). Although no facilities tour occurred in conjunction with this program review, both faculty and students indicated the desire to have dedicated program space to allow for specialized teaching related to course content.

Discussions with faculty indicated that courses are taught across a variety of locations on campus, requiring them to transport equipment and supplies to and from the class sessions. This, coupled with the need to set up the teaching space with necessary equipment (e.g., folding treatment tables), places an unnecessary burden on faculty and negatively impacts student learning and content delivery due to time lost during set-up and break-down of the teaching space. This program has similar space needs to other health professions programs at NCC, such as Nursing and Sonography. The program would benefit from a single teaching space that could meet both the lecture and lab needs of the program, as well as provide space for equipment and supply storage. The addition of dedicated program space would enhance student learning, provide a location for students to study and practice clinical skills, and reduce the burden on faculty members to transport and set up equipment and supplies prior to class sessions.

Program outcomes are strong for students enrolled in the Sports Medicine & Rehabilitation Sciences program at NCC. However, program outcomes that focus on clinical practice such as orthopedic evaluation or injury treatment and rehabilitation should be modified to reflect the pre-professional nature of the program. Students should gain knowledge of medical conditions commonly seen in practice but should not be taught or assessed on specific clinical examination and diagnosis skills or treatment and rehabilitation skills in a program of this type. From my personal experience teaching students from the NCC Sports Medicine & Rehabilitation Sciences program who have transferred to Moravian University to study Health Sciences and/or Athletic Training, I find these students to be very well-prepared with regard to both foundational knowledge and professional behaviors. It is clear that graduates of the program are being professionally socialized and mentored to become productive future healthcare professionals.

Useful changes to program outcomes could include measuring success in preparing students for admission to four-year pre-professional programs in Health Sciences and Exercise Science and/or success in graduates being admitted to professional graduate programs in Athletic Training, Occupational Therapy, Physical Therapy, etc. I recommend revising some of the program outcomes to align with basic knowledge required for all health professions as opposed to continuing to focus on Athletic Training skills. This recommendation was further supported during student interviews when the individual interviewed indicated that the strong focus on building Athletic Training skills negatively impacts overall student interest and retention in the program, especially for individuals interested in careers in Physical Therapy, Occupational Therapy, and Medicine.

Perhaps refocusing student outcomes on the Institute of Medicine (IOM) Core Competencies, which include providing patient-centered care, working in interdisciplinary teams, employing evidence-based practice, applying quality improvement, and utilizing informatics, would be preferred to assessing clinical skills in Sports Medicine.

One of the strongest areas of performance for students enrolled in the Sports Medicine & Rehabilitation Sciences program was in the area of "soft skills", such as dependability, professionalism, scope of knowledge, initiative, and confidence. These skills are

universal across all disciplines in healthcare and are highly sought after by professional graduate programs. In this area, the program is preparing students well for future success.

Based on recommendations from the 2015 program review, the Sports Medicine & Rehabilitation Sciences program has already begun to shift its focus from Athletic Training to a broader range of healthcare professions. This is a necessary and useful change that should be expanded to all aspects of the program over the next five years. While the Bureau of Labor Statistics (BLS) Occupational Outlook Handbook predicts the profession of Athletic Training to have a 23% growth through 2030, there are a number of factors, including work-life balance, a declining societal interest in traditional athletics, lower salaries compared to other healthcare professions, unusual work schedules (including weekends and evenings), and less professional autonomy, that are decreasing student interest in careers in Athletic Training. The other

healthcare professions that are represented in the program's changing demographics are also expected to see significant job growth according to the BLS, with Occupational Therapy experiencing 18% growth, Physical Therapy 21% growth, and Physician Assistant 31% growth by 2030. With significantly better starting salaries, typically twice that of Athletic Training, and better work-life balance, these professions are much more attractive to students from Generation Z. To this end, I recommend diversifying the backgrounds of faculty within the Sports Medicine & Rehabilitation Sciences program. Currently, all three faculty members have educational and clinical preparation in the field of Athletic Training. Utilization of faculty members with educational and clinical backgrounds in Occupational Therapy, Physical Therapy, and Strength & Conditioning will enhance the education of students in the program and better prepare them for continuing their educational journey at the undergraduate and graduate levels.

The program has experienced significant program growth between 2015 and 2020. This may be the result of expanding the program's breadth to include other healthcare professions. While enrollment numbers have increased, program attrition also remains high. This is likely a reflection of the program's strong focus on sports medicine (this has changed recently but would benefit from continued evolution) and the rigor of the program. Because the program focuses largely on clinical skills, clinical practice, and assessment of clinical proficiency through practical examination or clinical proficiency, students enrolled in the program have greatly increased burdens placed on their outside of class/lab time that other students at NCC typically do not have. These increased requirements, while necessary when the program was designed to prepare students to transfer directly into professional preparation programs in Athletic Training, are no longer necessary when preparing pre-professional students and likely contribute to the large rate of attrition in the program. As the program continues to transition from a pre-Athletic Training curriculum to a pre-professional Health Sciences curriculum, the time demands of students and faculty should diminish. This does not mean that quality of teaching or program outcome expectations of students should diminish, rather a change in focus from clinical skill acquisition and clinical skill proficiency should be replaced with foundational knowledge acquisition that is reflective of a larger swath of the healthcare community and behavioral outcomes proficiency that meets the IOM Core Competencies. These changes will likely result in continued program growth with respect to admissions and improved program retention and graduation.

Student feedback regarding the Sports Medicine & Rehabilitation Sciences program is excellent. Students indicate that the program provides them with a strong knowledge base, good clinical proficiency (although this may no longer be an appropriate metric to measure), outstanding professional (behavioral) skills, and readiness to successfully transition to a four-year program. Students praised program faculty for their ability to bring foundational concepts and clinical practice together. Students' overall rating of the program is impressive, with 89% of current students and graduates rating the overall

quality of the program as excellent.

A final note regarding review of the program audit materials that should be addressed. Discrepancies appeared between the Sports Medicine & Rehabilitation Sciences program curriculum (found on pages 2-3 of the program audit materials) and the course descriptions (found on the final two pages of the program audit materials). These discrepancies should be corrected in all promotional materials to better allow students to understand the program's curriculum and coursework. Specific discrepancies are listed below:

- SMAT 101 is listed as having different names in the Curriculum Guide and the Course Descriptions
- SMAT 230 is listed as having different names in the Curriculum Guide and the Course Descriptions
- SMAT 235 is listed as having different names in the Curriculum Guide and the Course Descriptions
- The Acute Care course is listed as both SMAT 240G and SMAT 245G and has two different names in the Curriculum Guide and the Course Descriptions
- SMAT 285 is included in the Course Descriptions but excluded from the Curriculum Guide, making it unclear where this course falls within the student's program progression

In addition to the changes above, the course description should be reviewed and updated to reflect the current name changes reflected in the Curriculum Guide and the changing focus toward general healthcare education.

In conclusion, it was my pleasure to serve as the External Reviewer for the Sports Medicine & Rehabilitation Sciences program at Northampton Community College. Please contact me should you have any questions or concerns or need additional feedback regarding this summary report.

Sincerely,

James R. Scifers, DScPT, PT, LAT, ATC
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Program Director, Master of Athletic Training
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