

Evaluating Cultural Competency: A Theory-Driven Integrative Process/Outcome Evaluation of an Associate Degree Program

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Disclosure Statement

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Learner Objectives:

- (1) Clarify Program Theory-driven Evaluation Research Design
- (2) Identify its purpose in nursing education
- (3) Understand its usefulness in program evaluation

The author is employed by Central Connecticut State University, New Britain, CT.

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Program Theory-driven Evaluation Research

WHAT IS IT? WHY IS IT USEFUL? HOW DO YOU
USE IT?

What is it?

Program Theory-driven Evaluation Research

An evaluative process (Chen, 1990)

- Evaluates the effectiveness of a program
- Helps to develop program concepts from their social or behavioral aspects
- Helps to identify where programs are considered effective
- Helps to pinpoint areas where improvement is needed.

It is a good way to gauge meeting program goals and providing research data to support this conclusion

What is it?

Program Theory-driven Evaluation Research

The fundamental basis of program theory

- determine what ought to be (normative theory) and what actually is (causative theory), in an effort to identify program effectiveness.

This generalization is of importance to stakeholders

- Who may wish to evaluate other aspects or specific interests of the program
- Be able to use the results of the systematic evaluation as a template (Billings and Halstead, 2009).

Why is it useful?

Program Theory-driven Evaluation Research

The use of program theory-driven evaluation science can

- develop and improve programs
- aid decision making
- facilitate organizational learning and the development of new knowledge
- meet transparency and accountability needs (Donaldson, 2007)

Why is it useful?

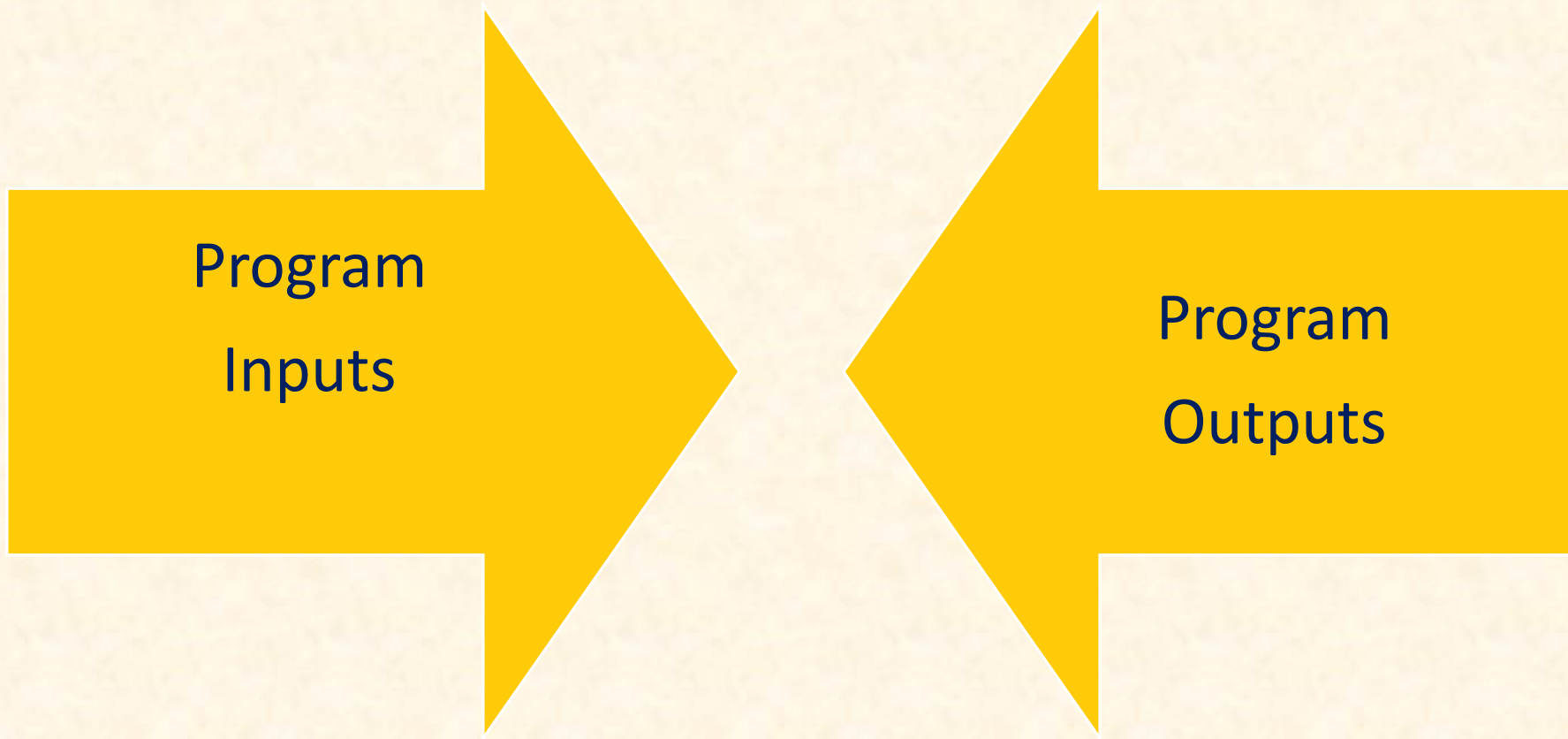
Program Theory-driven Evaluation Research

A program theory-driven evaluation can assist in identification of program weaknesses and assist in program modifications (Chen, 1990).

Billings and Halstead (2009) cite Chen's theory-driven evaluation as an adaptable framework for nursing education for program evaluation and meeting accreditation standards.

How do you use it?

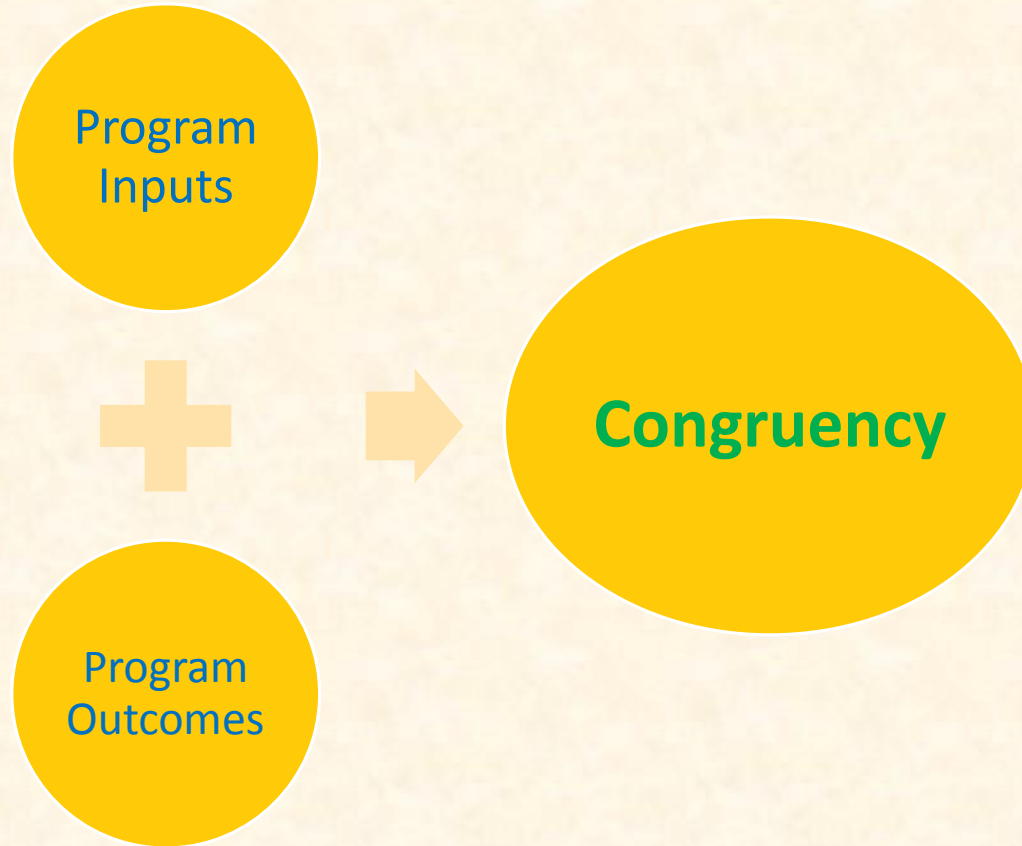
The Process



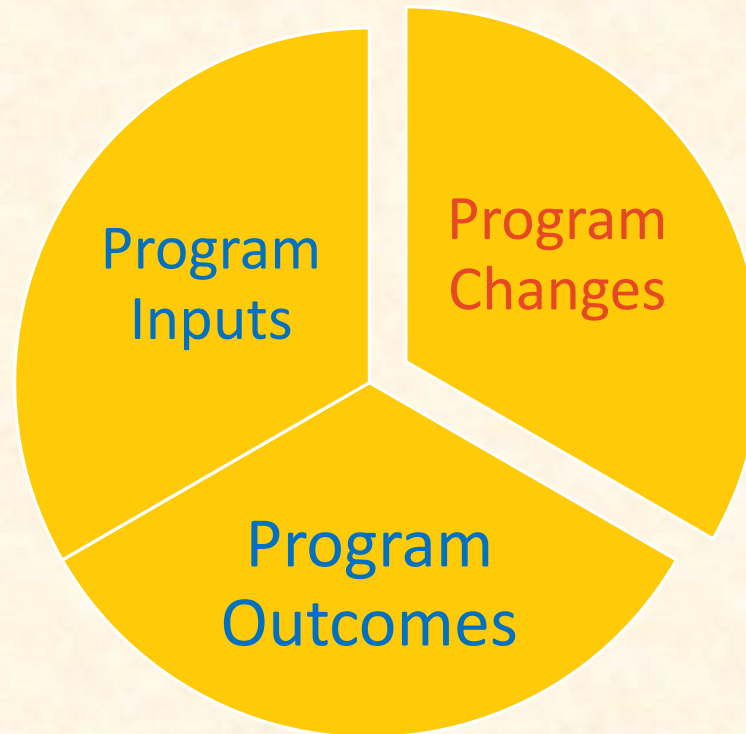
Design a Conceptual Map of Research



Confirm the Anticipated Outcomes



Understand the Potential Outcomes



Examples

Therapeutic
Recreation Program
Model

*Review Recreation
Practices

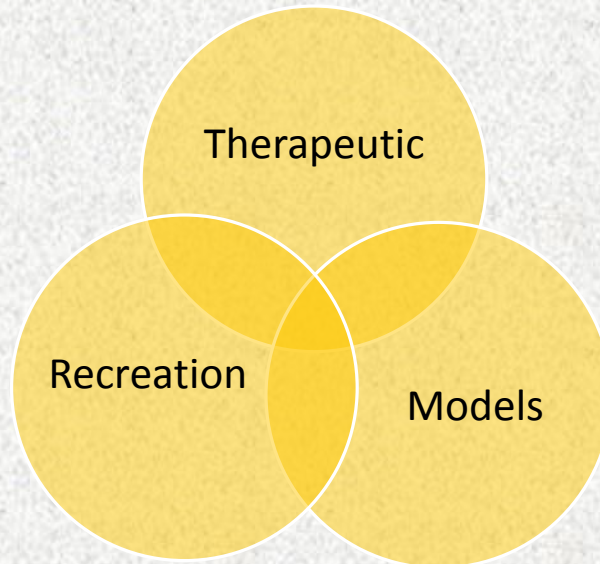
Social Programs on
HIV Education

*Evaluate Social
Programs at Several
Locations

Example #1

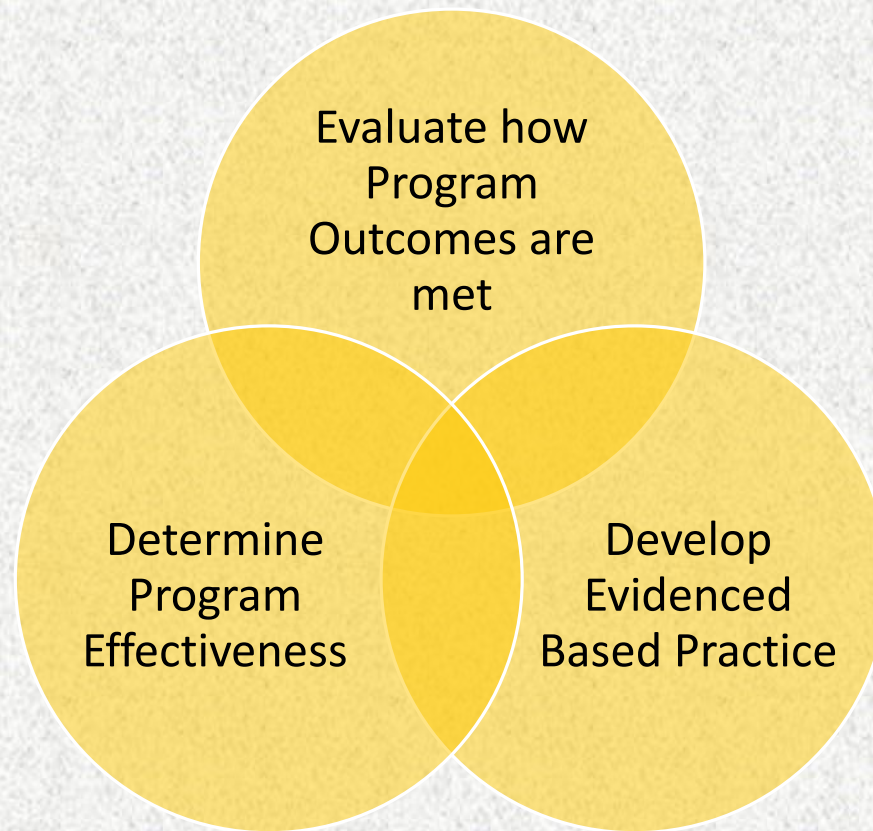
Therapeutic Recreation Models

Research was conducted to determine alignment of this evaluation design to therapeutic recreation models outlining various therapeutic concepts (Baldwin, Hutchinson, & Magnuson, 2004)



Results:

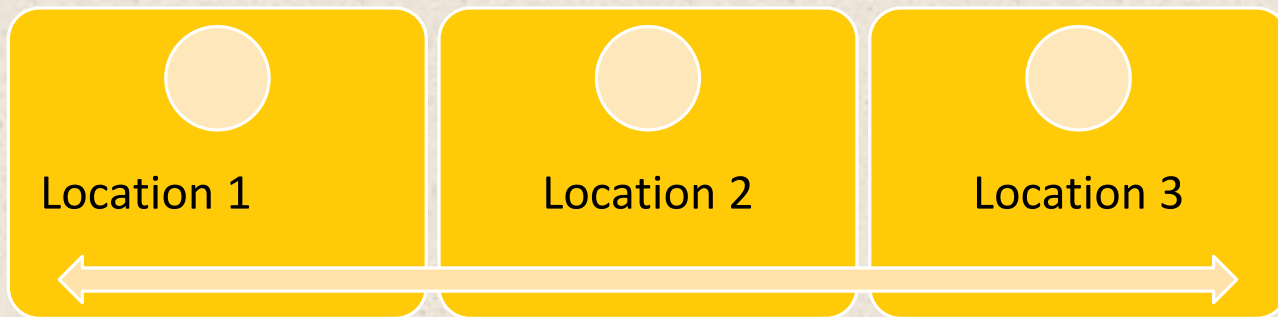
There was alignment with this framework



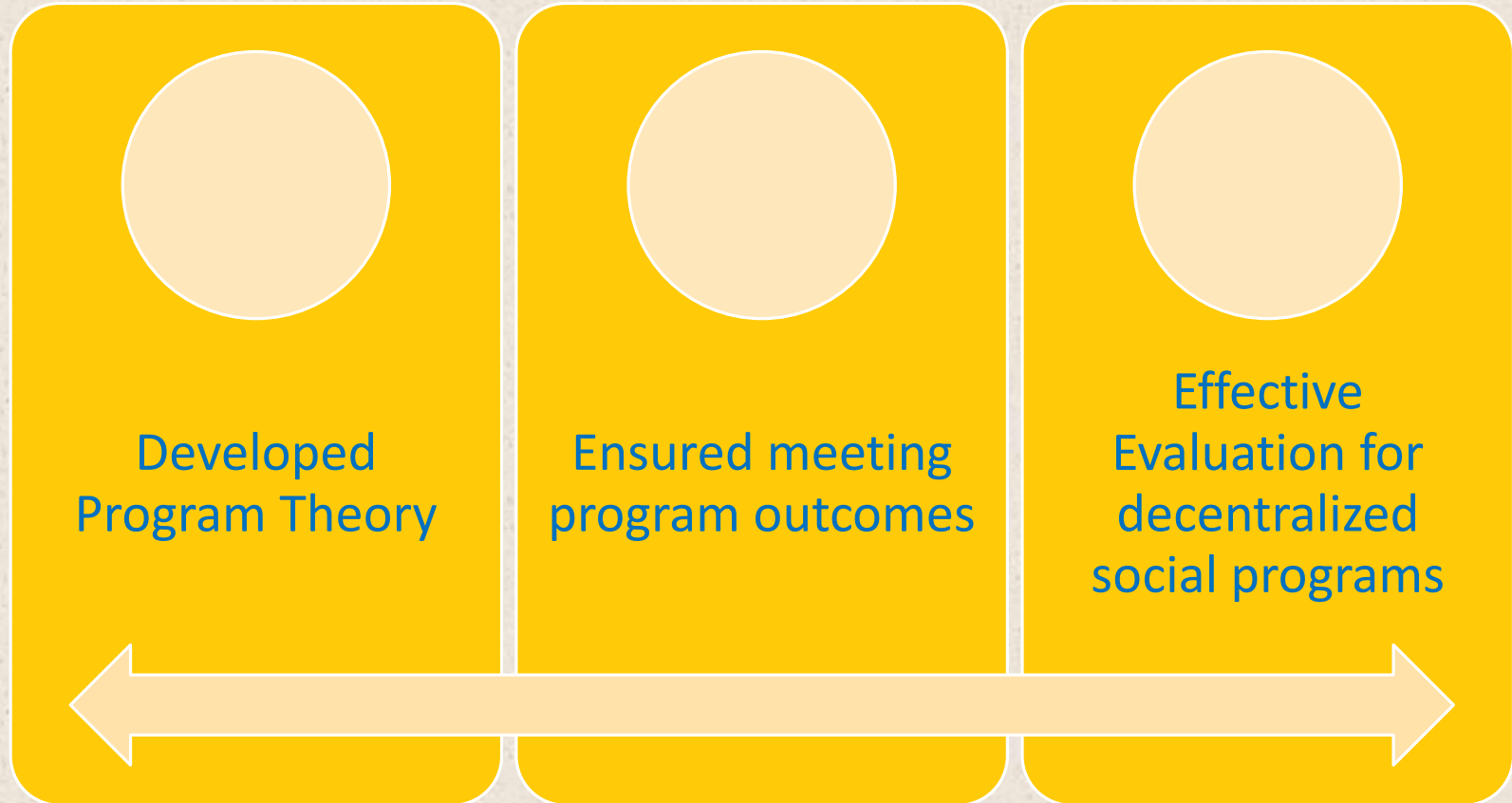
Example #2

Social Programs on HIV Education

Research was conducted to determine the effectiveness of this evaluation design on a South African Purveyor Program, which manages numerous sites responsible for providing social programs on HIV education (Oosthuizen and Louw, 2013)



Results: Evaluation was effective



Use of Program Theory-driven Evaluation Science in Nursing

AN OVERVIEW OF RESEARCH CONDUCTED ON AN ASSOCIATE DEGREE PROGRAM, AND ITS ABILITY TO MEET ITS PROGRAM OUTCOMES AND ACCREDITATION STANDARDS ON CULTURAL COMPETENCY

Introduction to Research Study

The Accrediting Commission for Education in Nursing (ACEN, 2013), has a broad definition of cultural competency standards for accreditation

The program outcomes on cultural competence adopted by the ACEN for Associate Degree Programs are similar to those for Baccalaureate Degree Programs

Statement of Problem

There is no consistent method of teaching cultural competence or incorporating it into nursing curriculum

Nursing programs are at risk for misinterpretations or not meeting required program outcomes (Calvillo, et al., 2009; Kardong-Edgren, et al., 2010).

Nursing programs are also at risk of not aligning with cultural competency standards (ACEN, 2013; CCNE, 2009; NLN, 2008).

Research Purpose

Determine through techniques associated with program theory-driven evaluation science (Donaldson, 2007) whether the program inputs of an associate degree program, located in a culturally diverse urban location, can produce intended program outcomes.

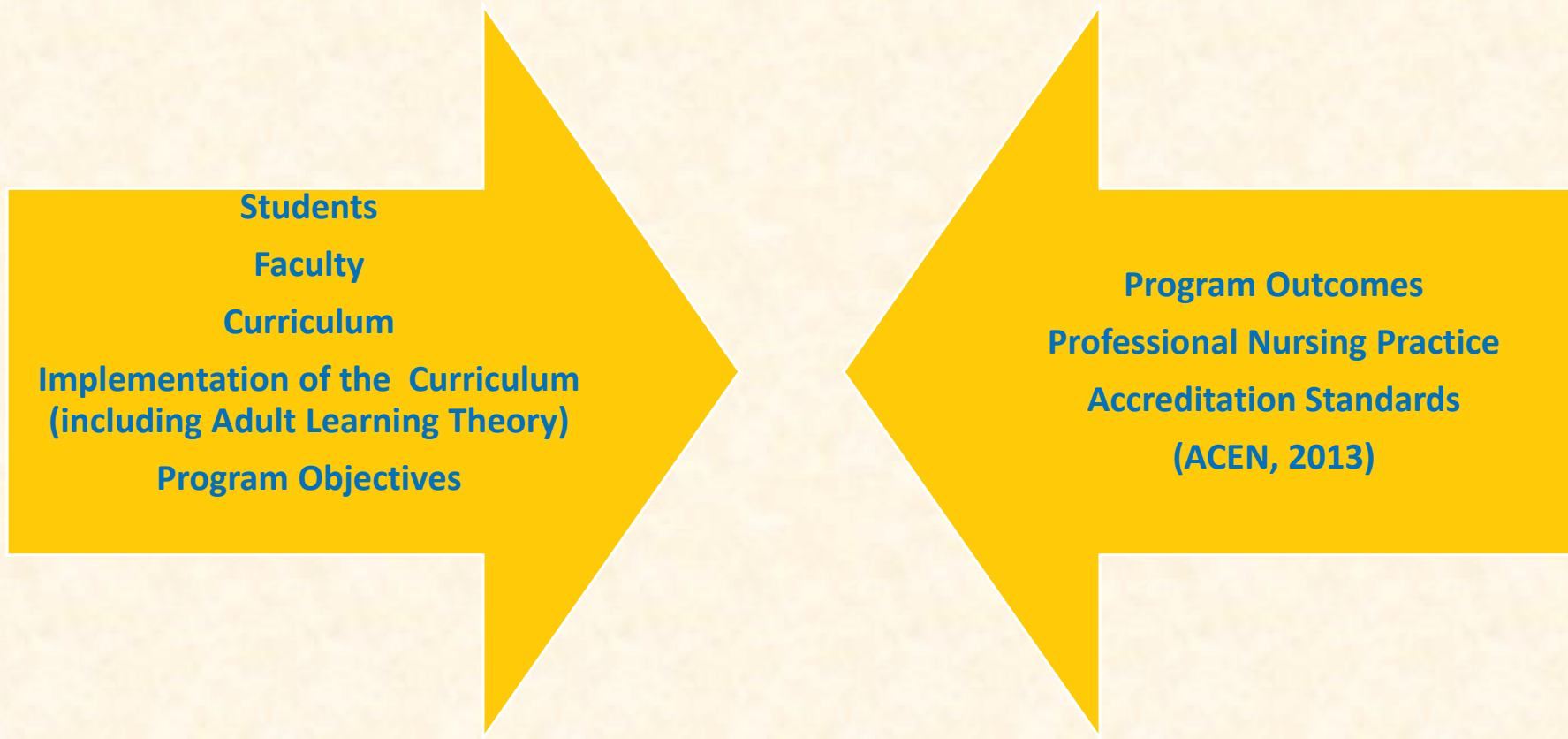
Determine alignment of program outcomes to accreditation standards on cultural competence (ACEN, 2013).

Primary Research Question

- Is there congruency between program theory, program implementation, and program outcomes for development of cultural competency in an associate degree nursing program?

Conceptual Framework

Evaluate Program Inputs to Program Outputs



Conceptual Framework

PROGRAM OUTPUTS

Goal: Nursing graduates who are considered culturally competent

Benchmark:
Accreditation Standards on Cultural Competency (ACEN, 2013)

PROGRAM OUTPUTS

Exemplar: Campinha-Bacote's Cultural Competency Model

- Cultural Awareness
- Cultural Knowledge
- Cultural Skill
- Cultural Encounters
- Cultural Desire

Methodology

Conceptual Framework

Using the program theory-driven evaluation design as a framework, an evaluative inquiry included:

- review of accreditation standards
- program curriculum,
- learning experiences
- program outcomes

To determine if the nursing program had met its educational purpose

Methodology

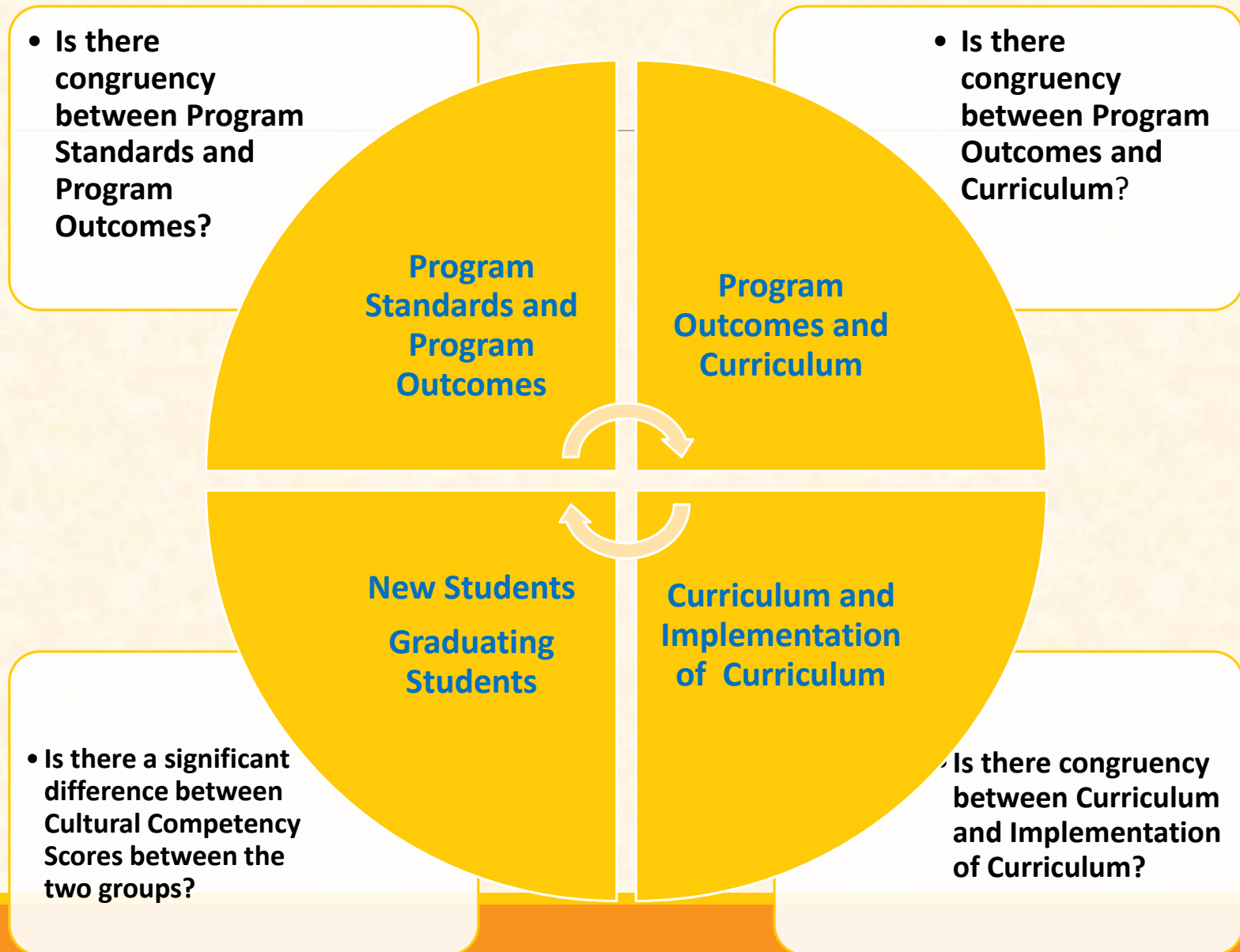
Non-experimental causal-comparative research

Embedded in this theory driven evaluation

- A causal-comparative research design used to review two intact nursing groups enrolled in an associate degree program

Determine the nursing program's ability to meet cultural competency goals through its curriculum development and its curriculum implementation.

Conceptual Map of Research



Research Hypothesis

Nursing students who have been exposed to an associate degree nursing curriculum (treatment group) *will have significantly different scores* on a cultural competency inventory from nursing students who are entering an associate degree nursing program (control group).

Methodology

Convenience Sample

Control Group:

- 61 nursing students in Nursing 100 (first nursing course)

Experimental Group

- 60 nursing students in Nursing 220 (last nursing course)

Full time nursing faculty

- who have developed and taught the program curriculum
- Five Semester ADN Curriculum Design

Faculty Data Collection Overview

Faculty Survey Question #1

Do Cultural Concepts match Curriculum?

Are included in the Curriculum?



Faculty Survey Question #2

Review Program Outcomes and Accreditation Standards on Cultural Concepts

Do the outcomes match the standards on Cultural Concepts



Faculty Survey

Complete Teaching Style Survey to determine preferred teaching style

Are teaching styles in alignment with Adult Learning Theory?

Student Data Collection Overview

Survey

- Demographics Form
- Extraneous variables identified in Literature Review

Tool

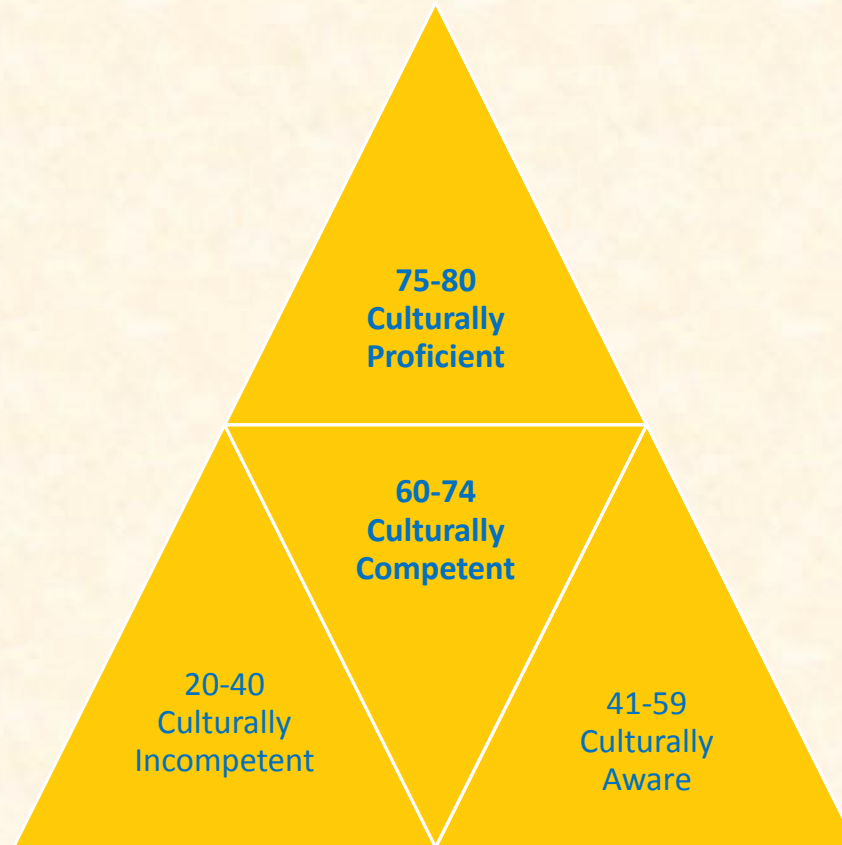
- Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals – Student Version IAPCC-SV
- Cultural Concepts: Awareness, Knowledge, Skill, Encounters and Desire

Admission Scores

- Control Group (Students entering Nursing Program) compared to Experimental Group (Students ready to graduate from Nursing Program)

Level of Cultural Competence

*Based on Campinha-Bacote's Cultural Competency Tool (IAPCC-SV)



Methodology

Data Analysis

Data collected from Faculty was compiled electronically via Survey Monkey and yielded:

- Congruency between program objectives and accreditation standards
- Congruency between program objectives and curriculum on cultural competency
- Congruency between Campinha-Bacote's Cultural Competency Tool and cultural concepts used in the nursing curriculum.

Methodology

Data Analysis

Data analysis of faculty responses to the electronic version of The Teaching Style Survey (Grasha-Riechmann, 1996) was compiled electronically.

Faculty teaching scores were then analyzed by the researcher based on teaching styles and complimentary learning styles identified by Grasha and Yangarber-Hicks (2000).

Methodology

Data Analysis

Data was collected from both the control and experimental groups

- (1) Cultural concepts from the Cultural Competency Tool (IAPCC-SV, 2007)
- (2) Demographics Form
- (3) Nursing Admission Scores

Statistical analysis was done by an independent statistician on all three data sets (Carroll, 5/2014).

Nursing Program Point System

Table 1: T- test results from Nursing Program Point System

Variable	Group	n	M	SD	t	df	p
Final Pts.	Control	61	19.67	1.14	1.33	110	p≥.05*
	Experimental	60	19.35	1.49			

*p≤.05 (statistical significance) – no significant difference between groups

Determined the homogeneity of groups based on admission criteria into the nursing program

Demographics Form

Table 2. T-Test results from Student Demographics Form: Age and Years in the US

Variable	Group	n	M	(SD)
Age	Experimental	49	34.92	8.095
	Control	61	31.46	8.364
Years in the US	Experimental	49	18.69	9.068
	Control	61	20.06	9.850

In analysis of the demographic data, the only significant difference was shown in age between the two groups (p value below .05).

Results

Statistical analysis of the control and experimental groups based on nursing admission requirements showed no statistically significant differences between the two groups (p value above .05).

The only significant demographic difference between the two groups was age (p value below .05).

Experimental group had a mean age of 35; Control group had a mean age of 31.

Results

Conceptual Framework:

The use of program theory-driven evaluation, as the conceptual framework, was compatible with research on nursing education.

Considered a neutral science, program theory-driven evaluation research blends both the social and scientific principles to yield pertinent data valued by program stakeholders (Donaldson, 2007).

Results

Research Question 1: *Is there congruency between program standards and program outcomes?*

Findings: 75% of faculty responses (N=4) showed congruency; 25% of faculty responses showed no congruency

Interpretation of data: There is alignment between accreditation standards and program objectives.

Results

Research Question 2: *Is there congruency between program outcomes and curriculum?*

Findings: 100 % of faculty (N=4) were in agreement with the nursing program's perceptions of cultural competency and they were embedded in the curriculum

Intepretation: These results established validity of using the IAPCC-SV Tool to collect cultural competency data from students

Results:

Research Question 3: *Is there congruency between curriculum and implementation (including use of adult learning strategies)?*

Results: 75% of the faculty (n=4) completed the Teaching Style Survey and showed higher scores in teaching styles associated with Adult Learning Theory

Intepretation: there is alignment with the implementation of the nursing curriculum with adult learning theory

Faculty Teaching Scores

Table 3: Faculty scores on the Grasha-Reichmann Teaching Style Survey (1996)

Teaching Style	Faculty #1	Faculty #2	Faculty #3
Expert	4.0	3.5	3.25
Formal Authority	4.0	3.625	3.125
Personal Model	4.0	3.75	3.0
Facilitator	4.0	3.625	3.125
Delegator	3.5	3.25	3.0

Review of the scores reflects higher numbers in each category, which corresponds to the number of statements the faculty agreed with regarding that teaching style (Grasha & Yangarber-Hicks, 2000).

Table 4: Faculty scores on compatible teaching styles and learning styles identified by Grasha & Yangarber-Hicks, 2000.

Teaching Styles and Learning Styles	Faculty #1 Scores	Faculty #2 Scores	Faculty #3 Scores
Expert/Formal Authority: Dependent/Participant/Competitive	8.0	7.1	6.4
Personal Model/Expert/Formal Authority: Participant/Dependent/Collaborative	12.0	10.9	9.4
Facilitator/Personal Model/Expert: Collaborative/Participant/Independent	12.0	10.9	9.4
Delegator/Facilitator/Expert: Independent/Collaborative/Participant	11.5	10.4	9.4

*faculty scores reveal a majority of them use concepts of adult learning theory, which is reflected on the higher scores in teaching categories for Personal Model/Expert/Formal Authority, Facilitator/Personal Model/Expert, and Delegator/Facilitator/Expert (Grasha & Yangarber-Hicks, 2000).

Results:

Research Question 4: *Is there a difference in scores of cultural competency concepts between those entering an Associate Degree Nursing Program versus those who have been exposed to the full curriculum of an Associate Degree Nursing Program?*

Results: There is a significant difference between the experimental (n=49) and control (N=61) groups on the cultural concepts of cultural knowledge and cultural skill.

Results:

Question 4 (continued)

For cultural knowledge and for cultural skill, there was a significant increase (p value .000) between those students completing the nursing program and those students just starting the nursing program.

In addition, there was a significant increase in total score (p value .001) between the experimental group and the control group.

Results

Both the control group and the experimental groups were considered to be culturally competent by Campinha-Bacote's cultural competence scores (ranges from 60 – 70).

The control group had a score of 62 and the experimental group had a score of 66.

Table 5. *T-Test Results from IAPCC-SV Cultural Competence Tool*

Variable	Group	n	M	(SD)	t	df	p value
Awareness	Experimental	49	10.41	1.14	1.86	108	.066
	Control	61	9.98	1.23			
<u>Knowledge</u>	Experimental	49	14.76	2.46	3.68	108	.000*
	Control	61	12.98	2.60			
<u>Skill</u>	Experimental	49	9.47	1.46	4.88	108	.000*
	Control	61	8.13	1.41			
Encounters	Experimental	49	16.67	1.89	.896	108	.373
	Control	61	16.34	1.94			
Desire	Experimental	49	14.18	1.51	.065	108	.948
	Control	61	14.16	1.65			
<u>Total</u>	Experimental	49	65.51	6.43	3.30	108	.001*
	Control	61	61.6	5.96			

* $p \geq .05$ (statistically significant)

Results

Interpretation: Using a program theory-driven evaluation research design, it can be presumed that the statistically significant difference in cultural competence levels between the two groups can be attributed to the exposure to the nursing curriculum (Chen, 1990; Donaldson, 2007).

Conclusions

The significant differences in cultural knowledge and skill components contributed to the significant differences in cultural competence levels between the experimental and control groups.

This statistical difference between the scores of the two groups shows the curriculum as having an impact on raising the level of cultural competence

This is different from what was identified and reported in the literature.

Conclusions

As a conceptual framework, program theory-driven evaluation research was compatible with nursing education, and provided evaluation data showing the nursing program curriculum and its implementation were in alignment with program outcomes.

Also provided was evaluation data that showed alignment between program outcomes and accreditation standards.

Further recommendations for research

Using program theory-driven evaluation research design on other associate degree nursing programs, as well as baccalaureate degree nursing programs – research could be replicated with few modifications, as accreditation standards for cultural competence are similar (ACEN, 2013; CCNE, 2008).

Further recommendations for research

Achieving cultural competence is a complex mix of cultural awareness, knowledge, and skill (Zander, 2007), and is considered a lifelong process (Campinha-Bacote, 2007).

Therefore: Surveying nursing graduates who have worked in health care for a minimum of five years with Campinha-Bacote's Cultural Competency Tool to see if there is retention or an increase in level of cultural competence.