

Important Factors Associated with the Research Utilization Competency of Nurses in Japan

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Background


Nursing research

Systematic inquiry designed to develop trustworthy evidence about issues of importance to the nursing profession, including nursing practice, education, administration, and informatics. (Polit et al, 2012)

Research utilization in nursing practice

Quality improvement of nursing practice

Current state of research utilization by nurses in Japan

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- Nurses are aware of the importance of research utilization in nursing practice
 - But they are also aware of the difficulty of reading the literature and utilizing research findings in nursing practice.

Research utilization in nursing practice is an important issue for Japan

Four Phases of the Research

Phase 1

To conceptualize the research utilization in nursing practice through a qualitative study.

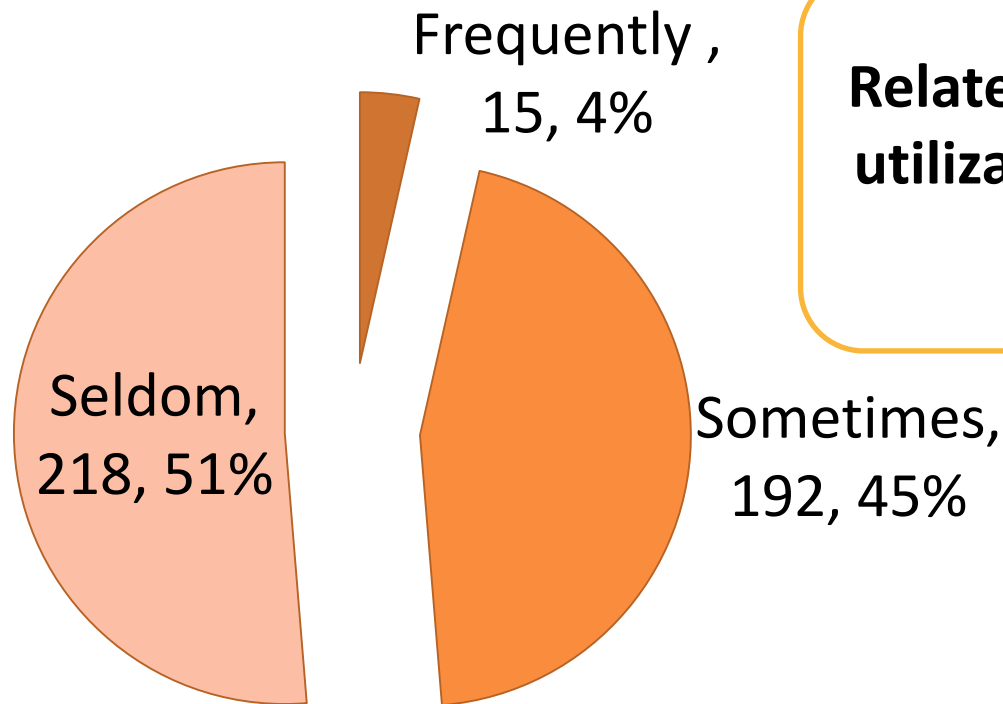
Phase 2

To develop a Scale for Self-assessment of Research Utilization Competency based on the results of the qualitative study in phase 1.

Phase 3

To clarify the current state of research utilization competency by Japanese nurses using the scale developed in phase 2.

Frequency of Research Utilization by nurses in Japan



**Related to the research
utilization competency
 $P < .001$**

**Japanese nurses should improve
their research utilization competency**

Four Phases of the Research

Phase 1

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Phase 2

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Phase 3

To clarify the current state of research utilization competency by Japanese nurses using the scale developed in phase 2.

Phase 4

Purpose of the Phase 4

- To explore important factors associated with research utilization competency of nurses in Japan.

Conceptual Framework

Nursing Characteristics

- Types of Unit
- Years of Clinical Experience
- Job Title
- 8 variables

Learning Characteristics

- Active Participation in Continuing Education
- Reading Professional Journals
- Hours of Study / Week
-11 variables

Research and Research Utilization

- Experience of Conducting Nursing Research
- Active Involvement in Research Effort in the Workplace
-4 variables

Work Environment

- In-Service Education
- Support from Superiors
-5 variables

Research Utilization
Competency

A conceptual framework diagram with a central box labeled 'Research Utilization Competency' at the bottom. Four lines radiate upwards from this central box to four surrounding boxes: 'Nursing Characteristics' (top-left), 'Learning Characteristics' (top-right), 'Research and Research Utilization' (middle-left), and 'Work Environment' (middle-right). Each of these four boxes contains a list of variables and a total count of variables.

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Conceptual Framework

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Conceptual Framework

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Conceptual Framework

Nursing Characteristics

Learning Characteristics

Research and
Research utilization

Work Environment

Research Utilization
Competency

**Examining characteristics related to research
utilization competency of nurses**

Identifying important characteristics related to
research utilization competency of nurses

Discussing the educational issues

Methods

Instruments

- The Self-Evaluation Scale on Research Utilization Competency for Clinical Nurses (SRUC)
- The Nurses' Attributes Questionnaire (NAQ)

The Self-Evaluation Scale on Research Utilization Competency for Clinical Nurses (SRUC)

- Measures the research utilization competency in nursing practice.
- Includes 6 subscales and consists of 35 items on a 5-point Likert scale.
- Items on the SRUC describe the behaviors needed to utilize research findings in nursing practice as identified by a qualitative study.
- The reliability and validity of the SRUC are well-established.

The Self-Evaluation Scale on Research Utilization Competency for Clinical Nurses (SRUC)

- 1. Searching for research findings that would improve nursing practice and assessing the quality of those findings**
- 2. Deciding the appropriateness of utilizing research findings in nursing practice from different perspectives**
- 3. Promoting the incorporation of new methods of nursing with the agreement of those concerned**
- 4. Adjusting environment for incorporation of new methods of nursing**
- 5. Adopting and spreading new methods of nursing while assessing their effectiveness**
- 6. Solving problems arising from changes in nursing practice**

The Nurses' Attributes Questionnaire (NAQ)

- To Examine 28 variables related to characteristics of nurses.
- The content validity of the NAQ was ensured through a pilot study and a panel of experts.

Data Collection Procedure

Directors of Nursing in 200 Hospitals in Japan were asked by mail to participate in the study



38 hospitals agreed to participate



- Instrument packets were distributed to 860 nurses working in the 38 hospitals**
- Nurses returned the completed packets in self-addressed envelopes**



Data were statistically analyzed

Ethical Considerations

- The study proposal was submitted to and approved by the IRB of the National Center for Global Health and Medicine, Japan.

Results and Discussion

860 nurses received an instrument packet



447 (52.0%) nurses returned the instruments by mail



Responses from 403 were valid and these responses were analyzed

Demographic Characteristics of the Participants

N=403

Sex	Female	383 (95.0%)
	Male	19 (4.7%)
	Unknown	1 (0.2%)

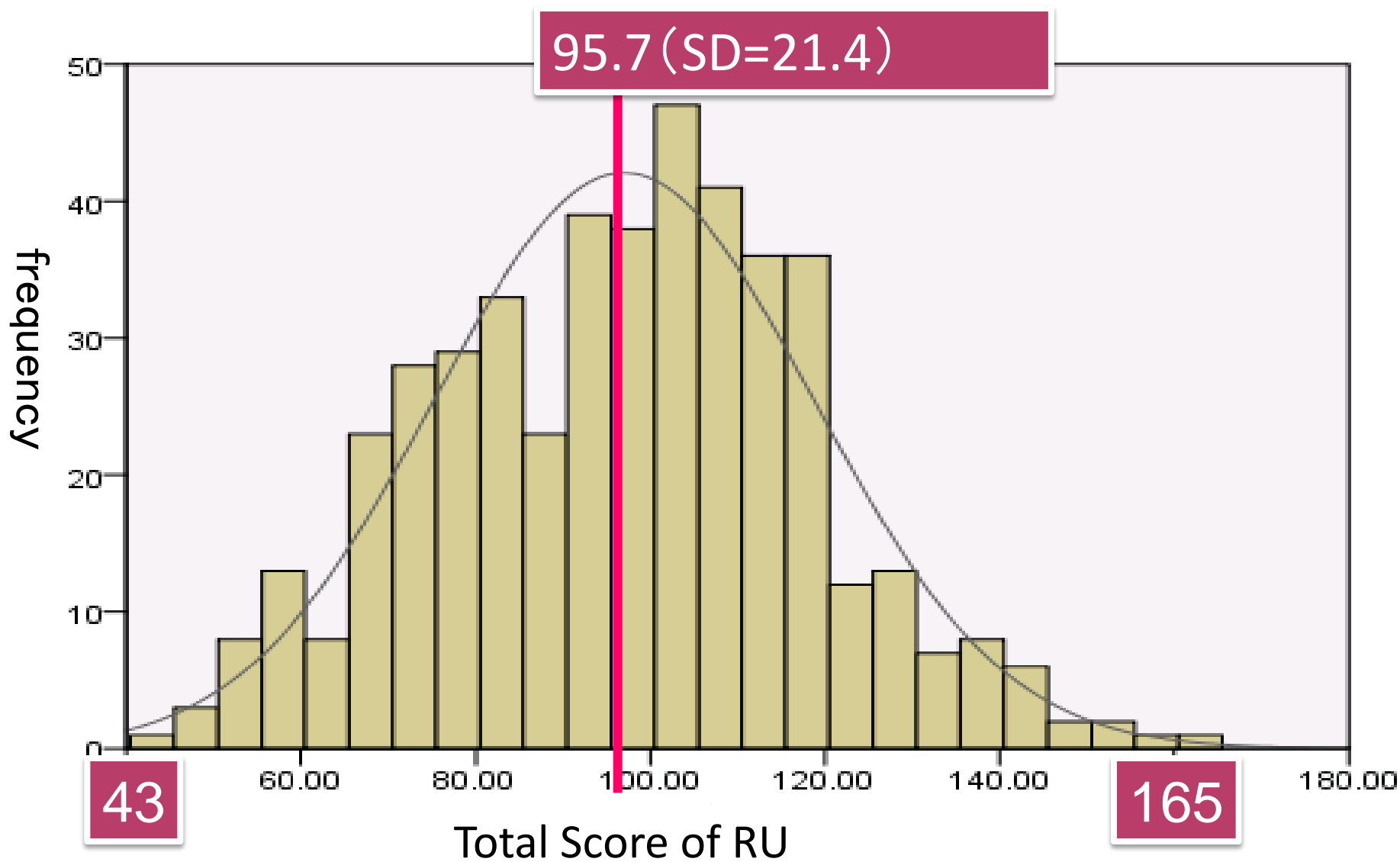
Age	mean=38.2, SD=8.7
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Years of clinical experience	mean=15.7, SD=8.5
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Job Title	Head nurse	44 (10.9%)
	Assistant head nurse	58 (14.4%)
	Staff nurse	281 (69.7%)
	Others & Unknown	20 (4.9%)

Score Distribution of SRUC

N=403



Relationship Between SRUC Scores and Nurses' Characteristics: Univariate Analysis

Nursing Characteristics

Job Title

Teaching or Instructing Other Nurses

Research and Research utilization

Opportunity to Think about Research Utilization

Knowledge of Nursing Research

Perceived Importance of Research

Research Experience

Having Given Research Presentations

Participation in Research Efforts in the Workplace

Utilization of Research in Nursing Practice

Learning Characteristics

Participation in Continuing Education

Reading Professional Journals

Hours of Study/Week

Number of Conferences Attended/Year

Opportunity to Study Nursing Research After Becoming a Nurse

Opportunity to Study Research Utilization after Becoming a Nurse

Work Environment

In-Service Education

Support for Research from Superiors

Collaboration with Colleagues to Conduct Research

Frequency of Discussions with Colleagues about Research

Research Utilization
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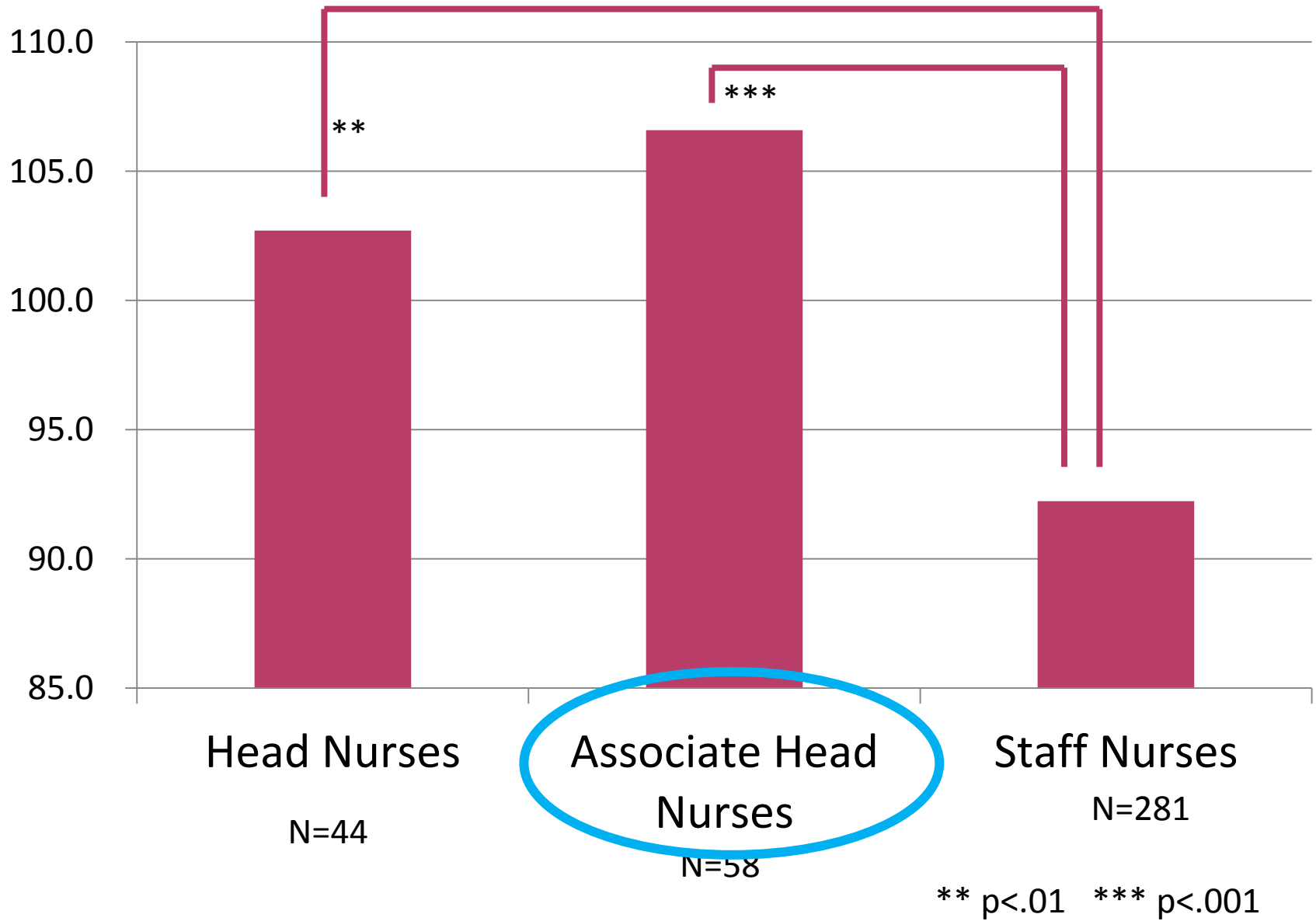


Figure 1. Job Title and SRUC Scores

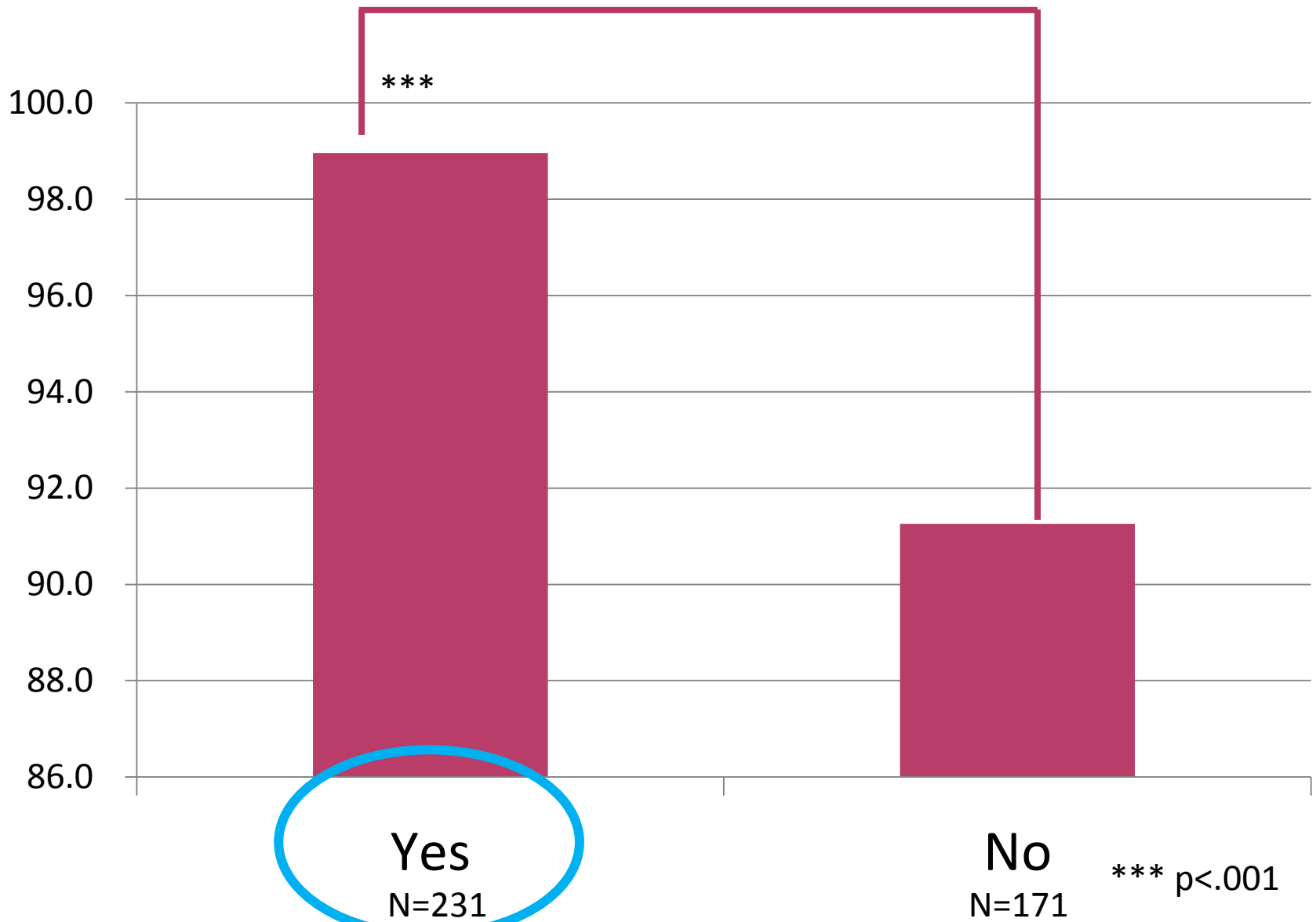


Figure 2. Teaching or Instructing Other Nurses and SRUC Scores

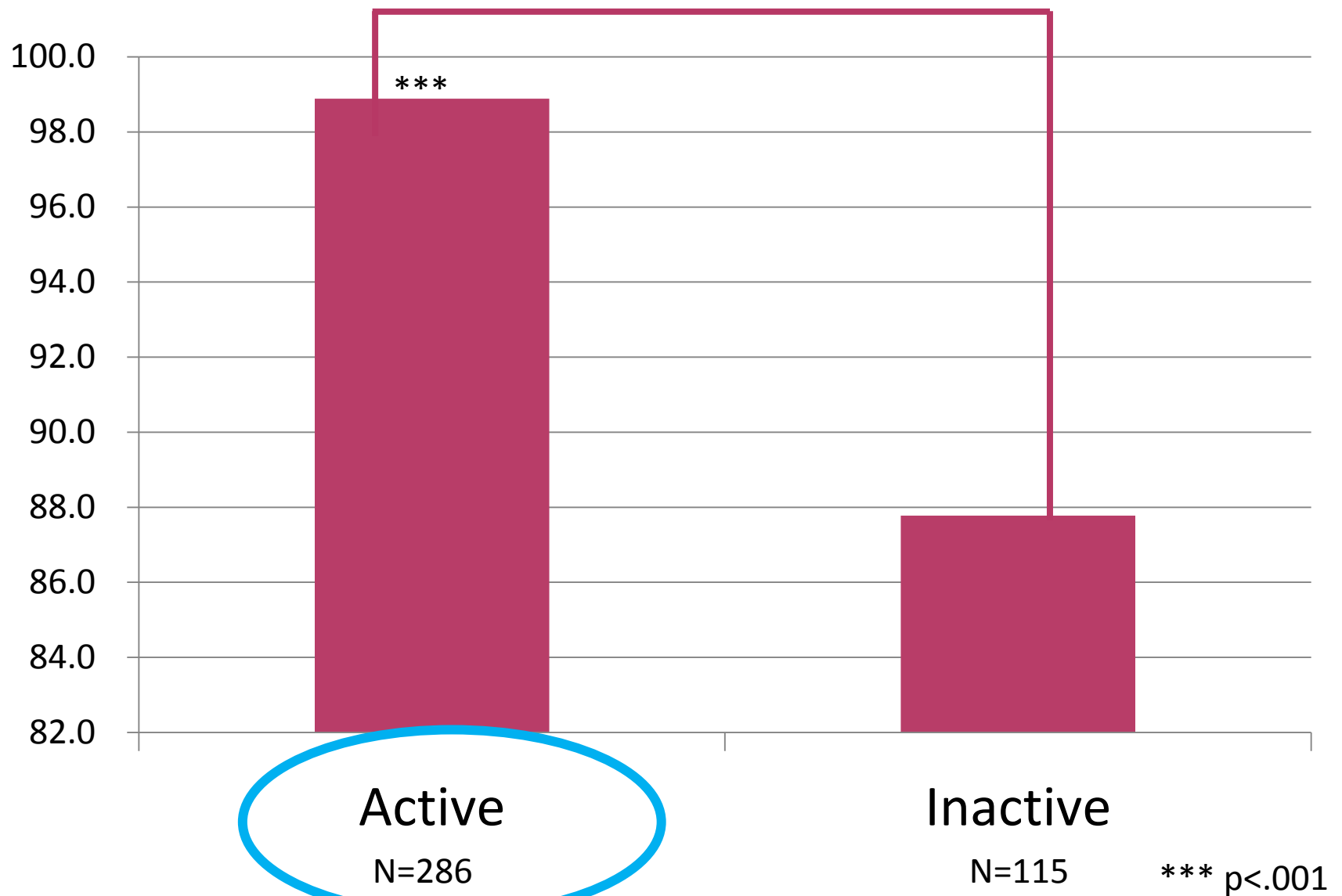


Figure 3. Participation in Continuing Education and SRUC Scores

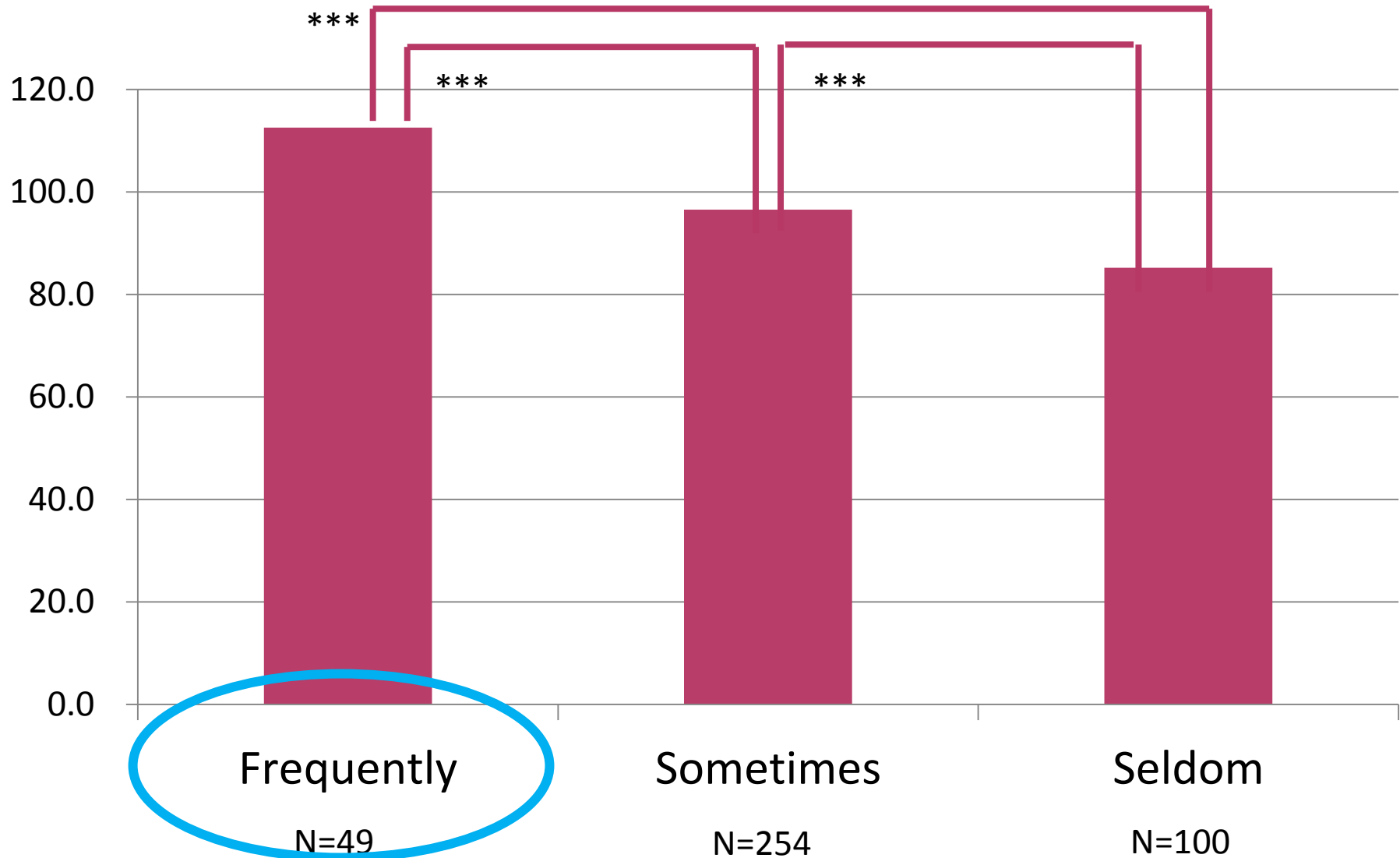


Figure 4. Reading Professional Journals and SRUC Scores

*** p<.001

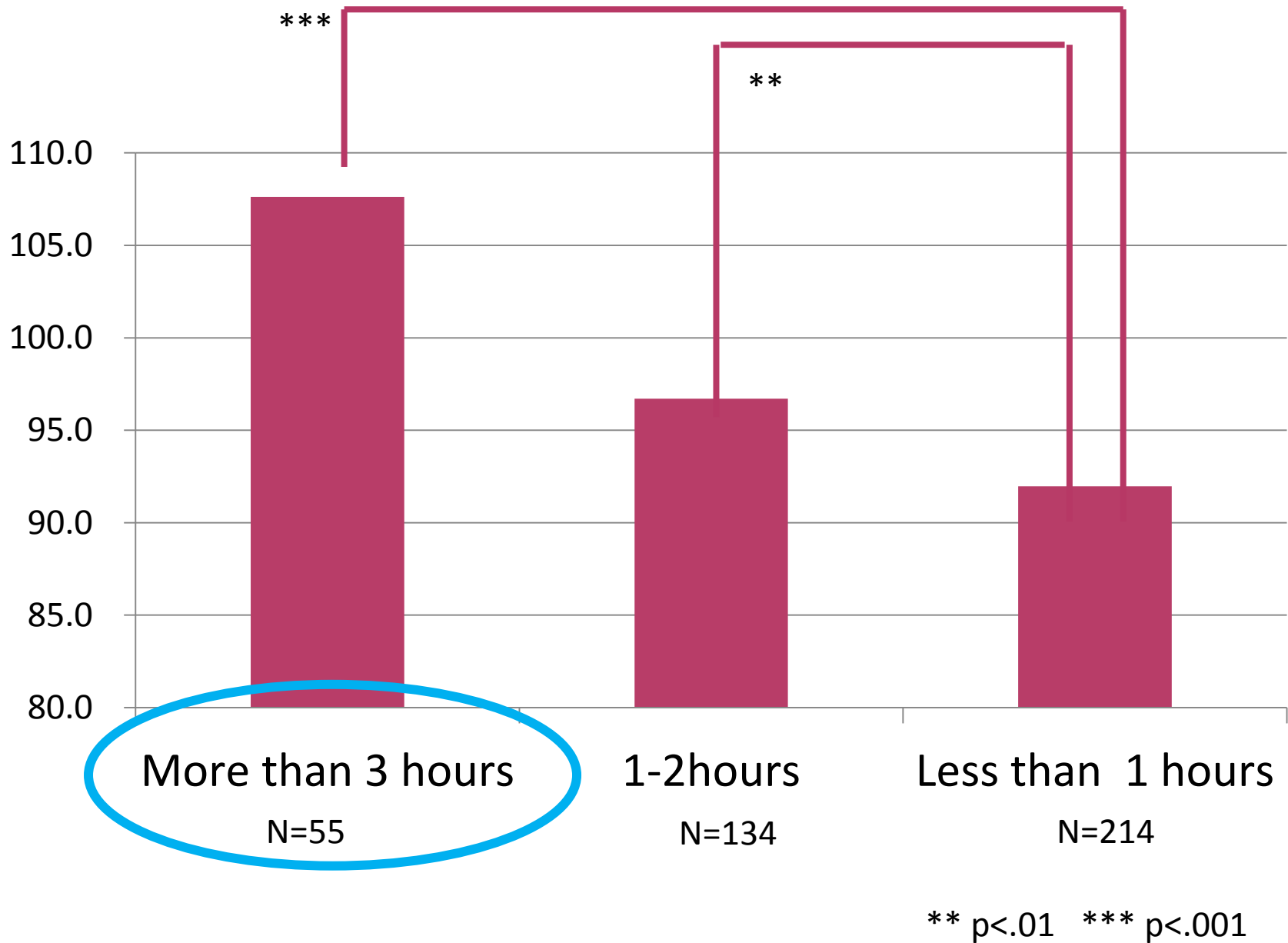


Figure 5. Hours of Study/Week and SRUC Scores

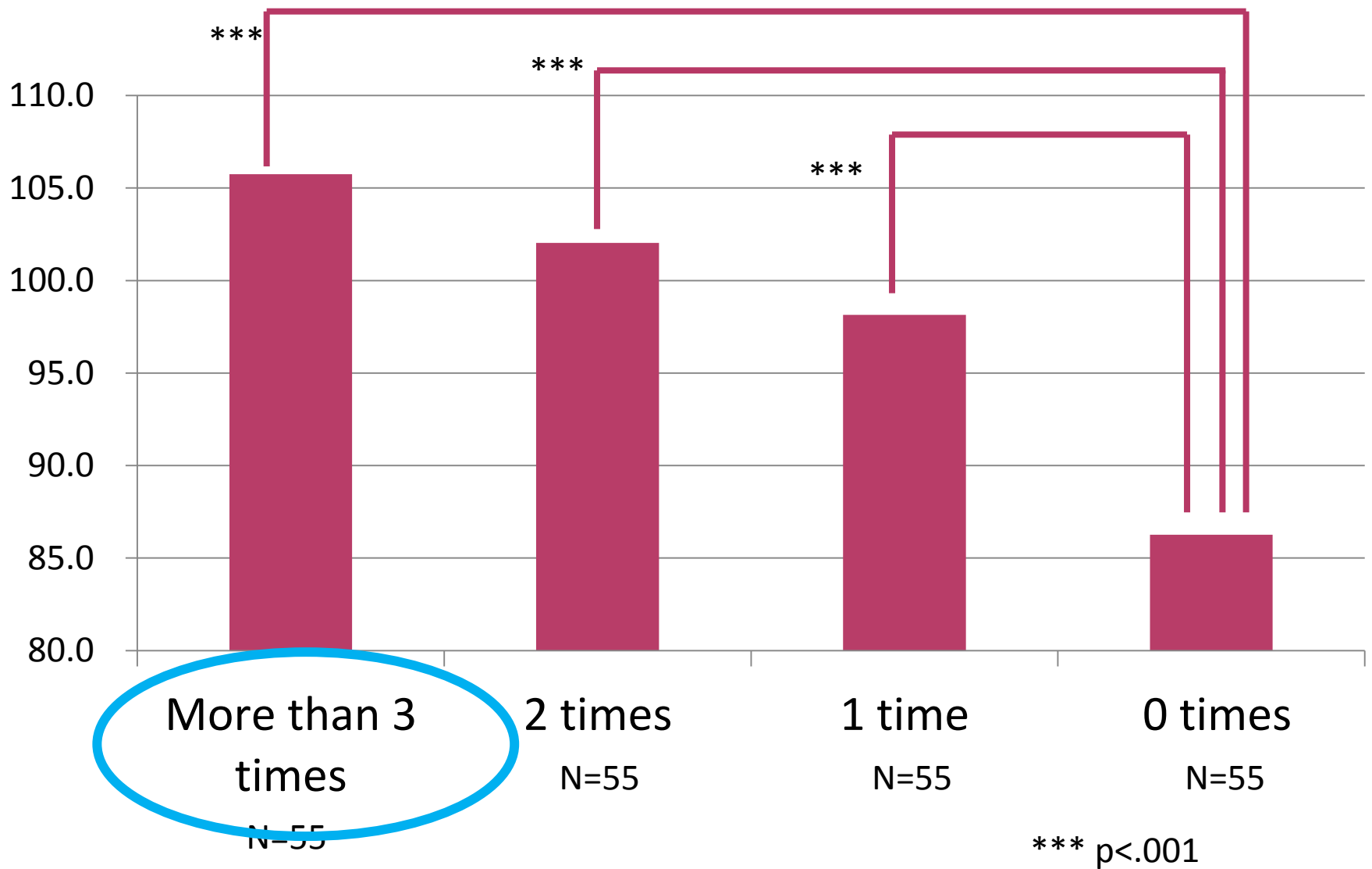


Figure 6. Number of Conference Attended/ Year and SRUC Scores

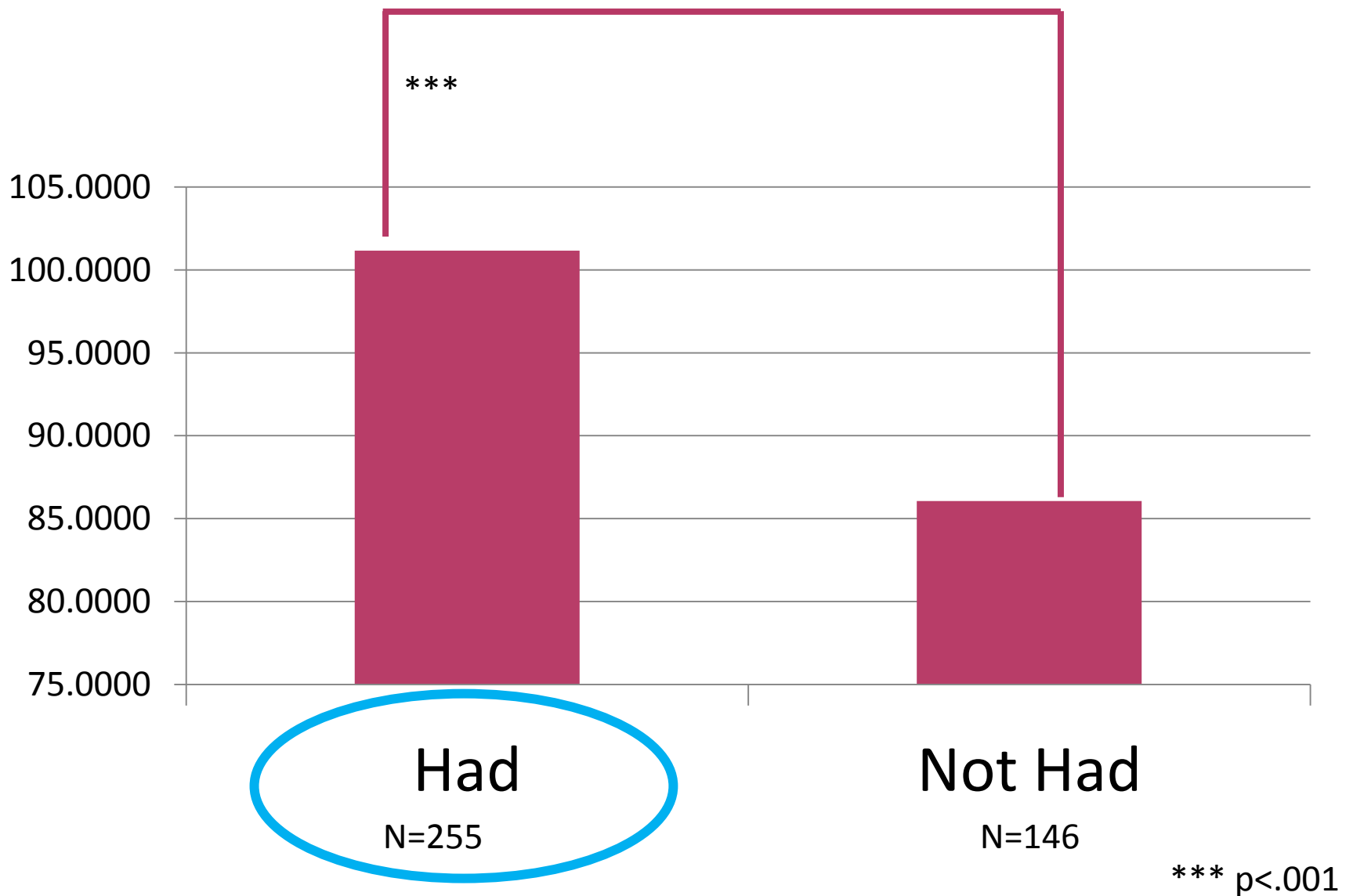


Figure 7. Opportunity to Study Nursing Research After Becoming a Nurse and SRUC Scores

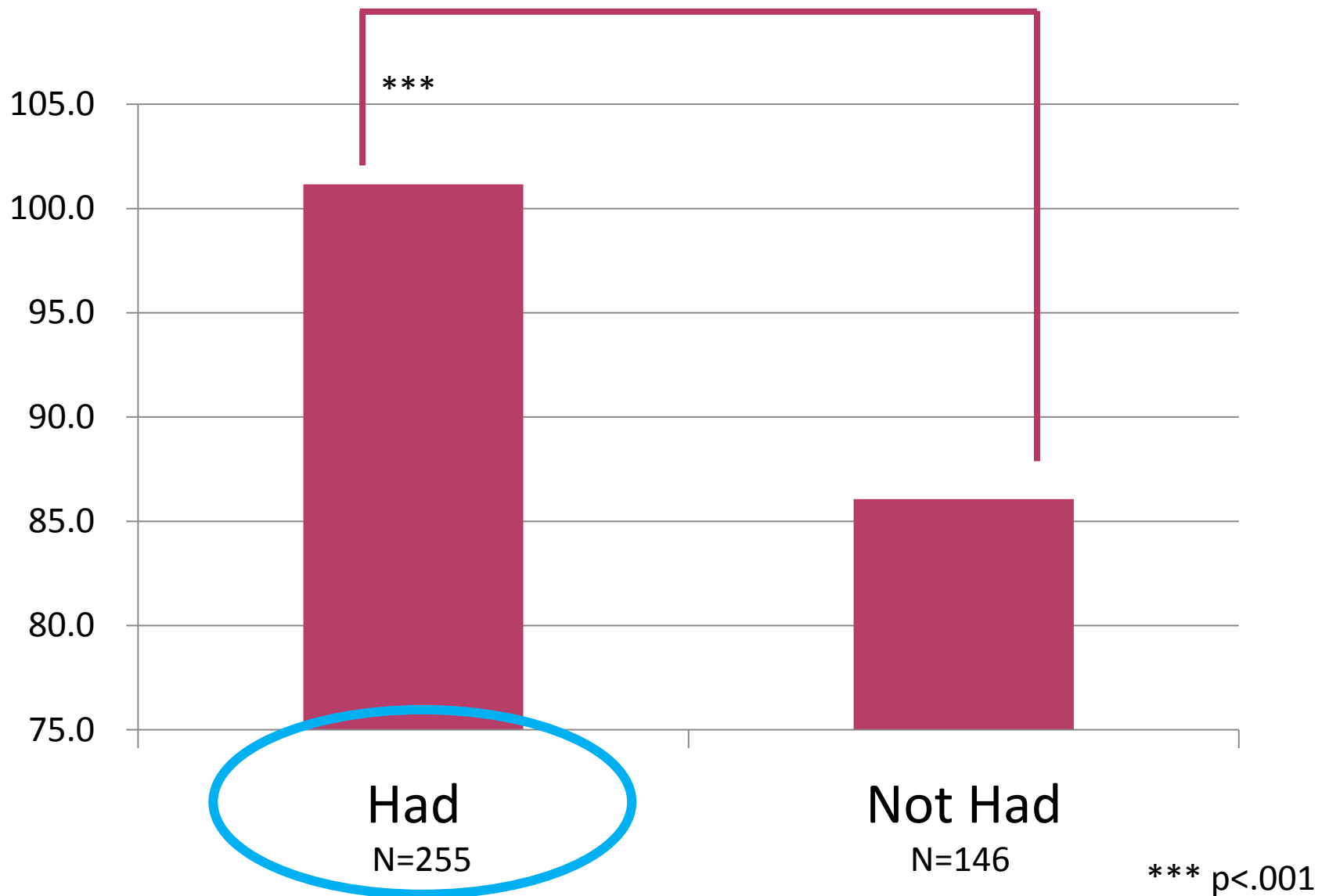
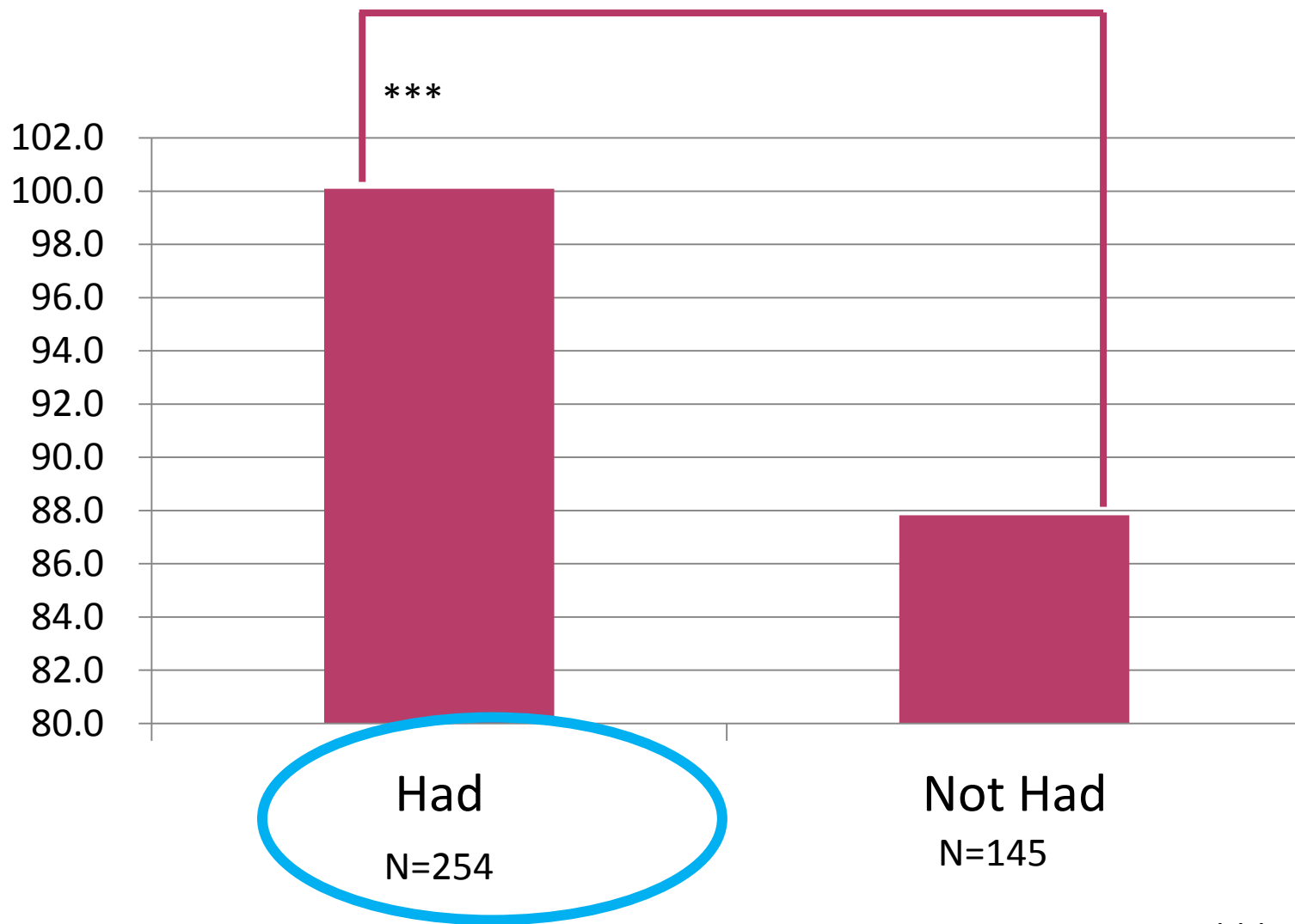


Figure 8. Opportunity to Study Research Utilization After Becoming a Nurse and SRUC Scores



*** p<.001

Figure 9. Opportunity to Think About Research Utilization and SRUC Scores

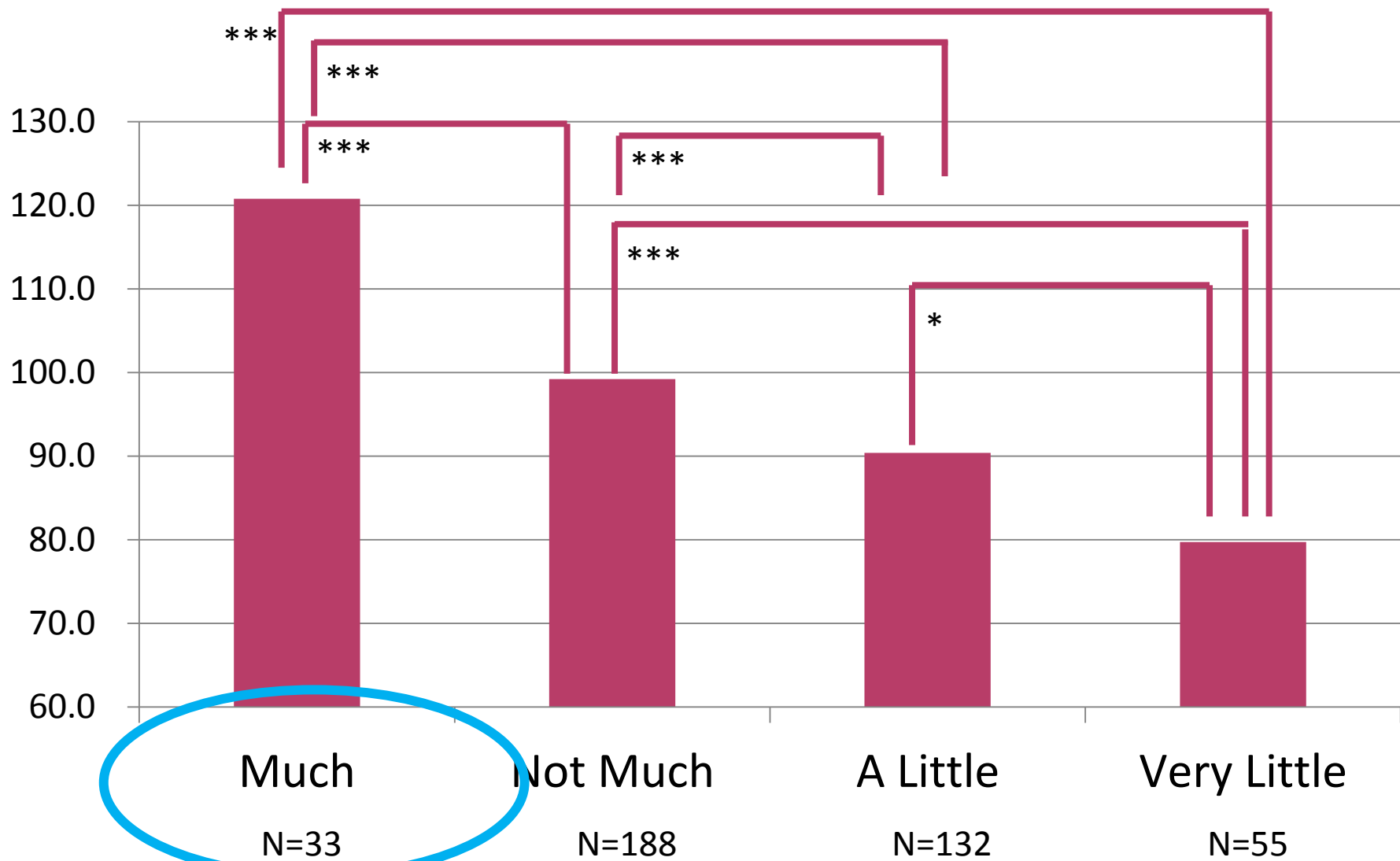


Figure 10. Knowledge of Nursing Research and SRUC Scores

* p<.05 *** p<.001

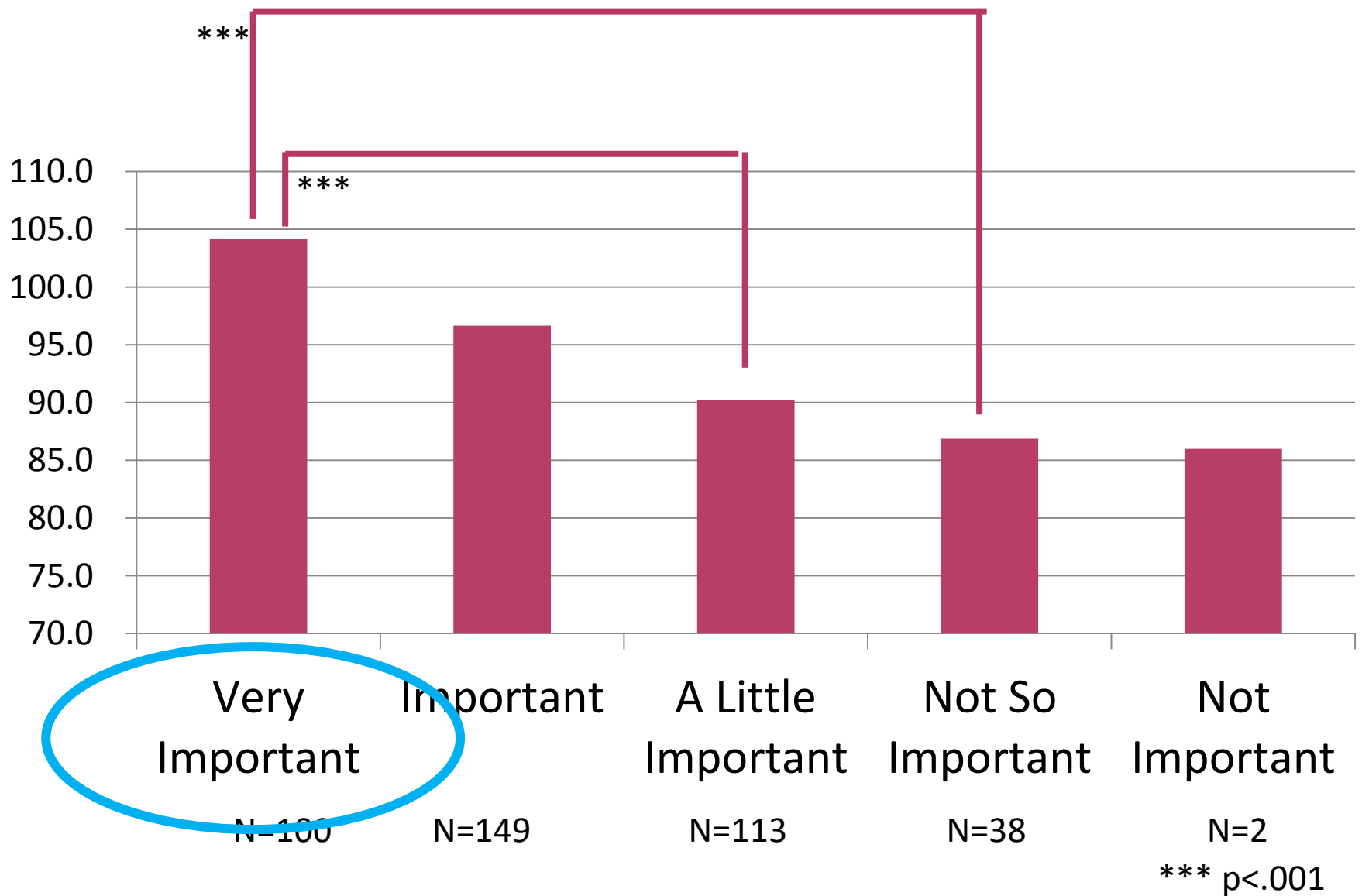


Figure 11. Perceived Importance of Research and SRUC Scores

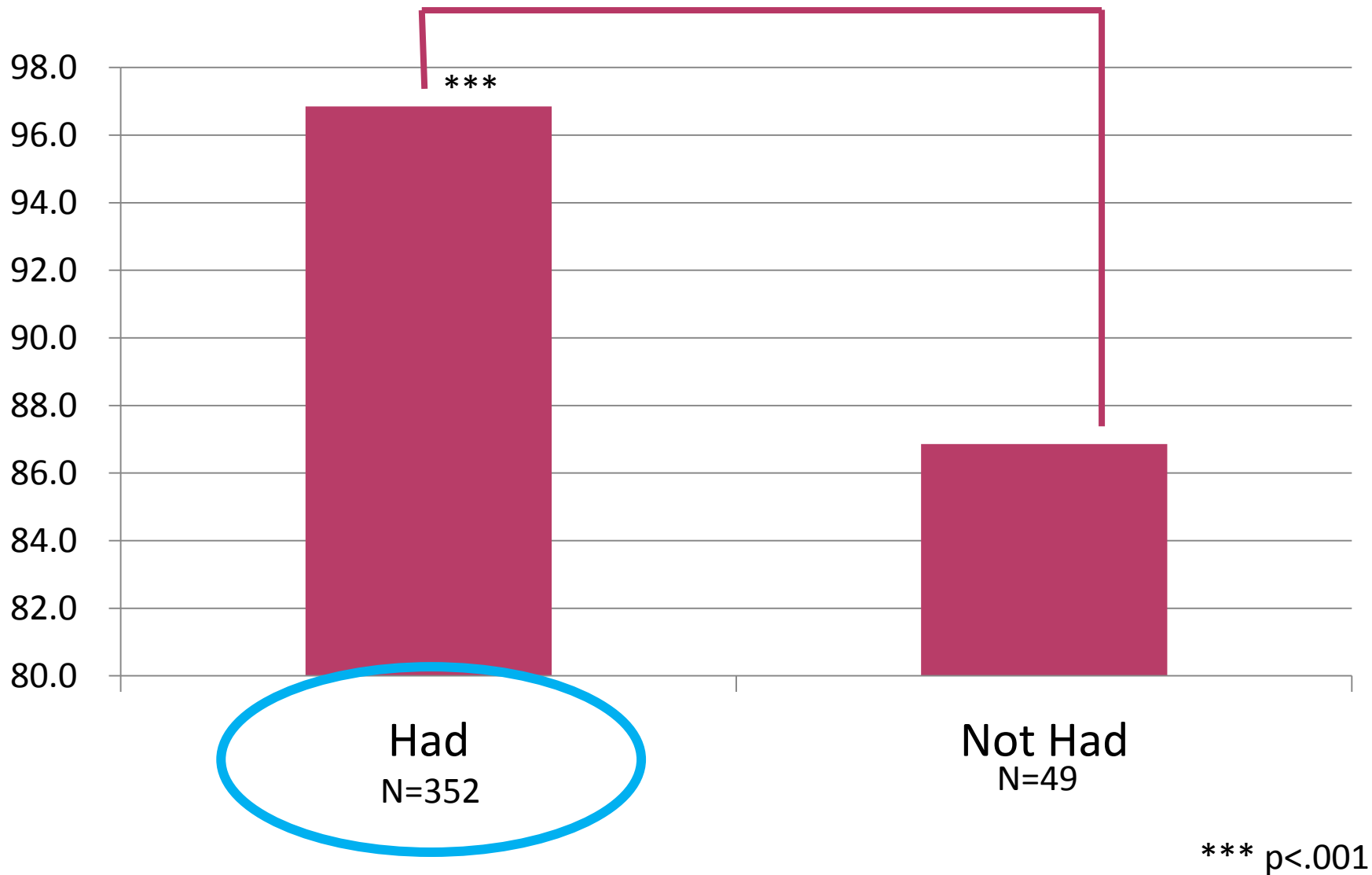


Figure 12. Research Experience and SRUC Scores

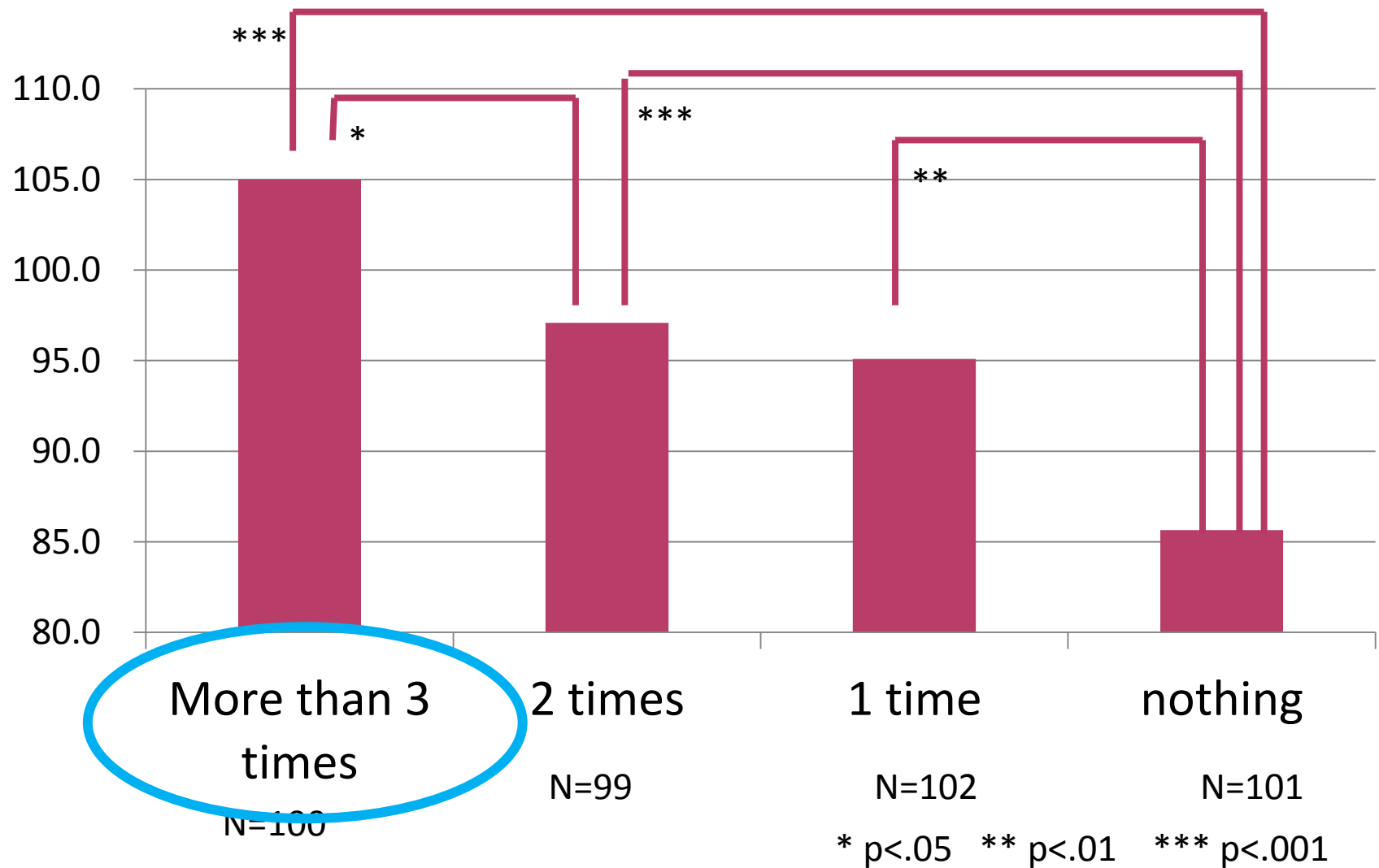


Figure 13. Having Given Research Presentation and SRUC Scores

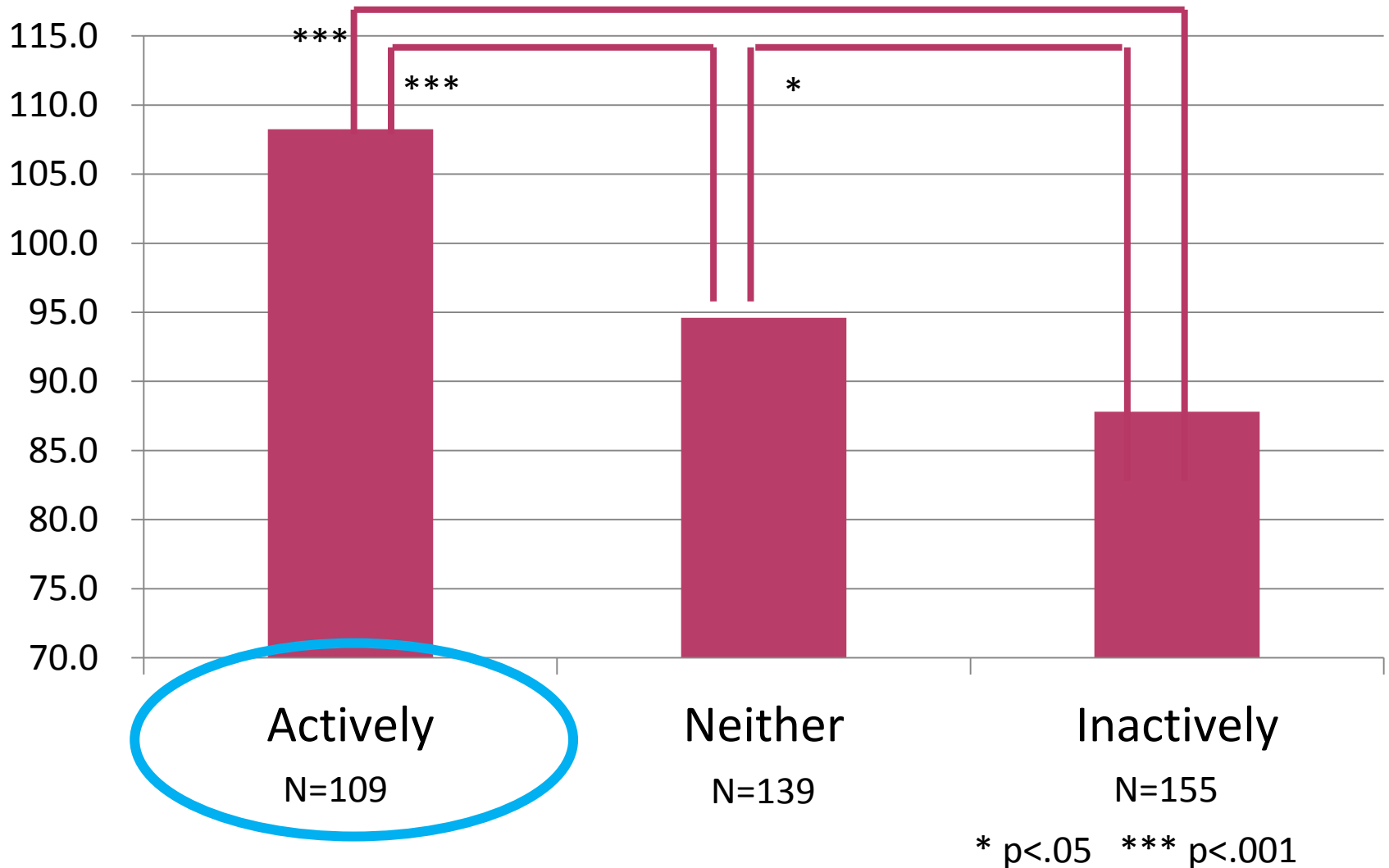


Figure 14. Participation in Research Efforts in the Workplace and SRUC Scores

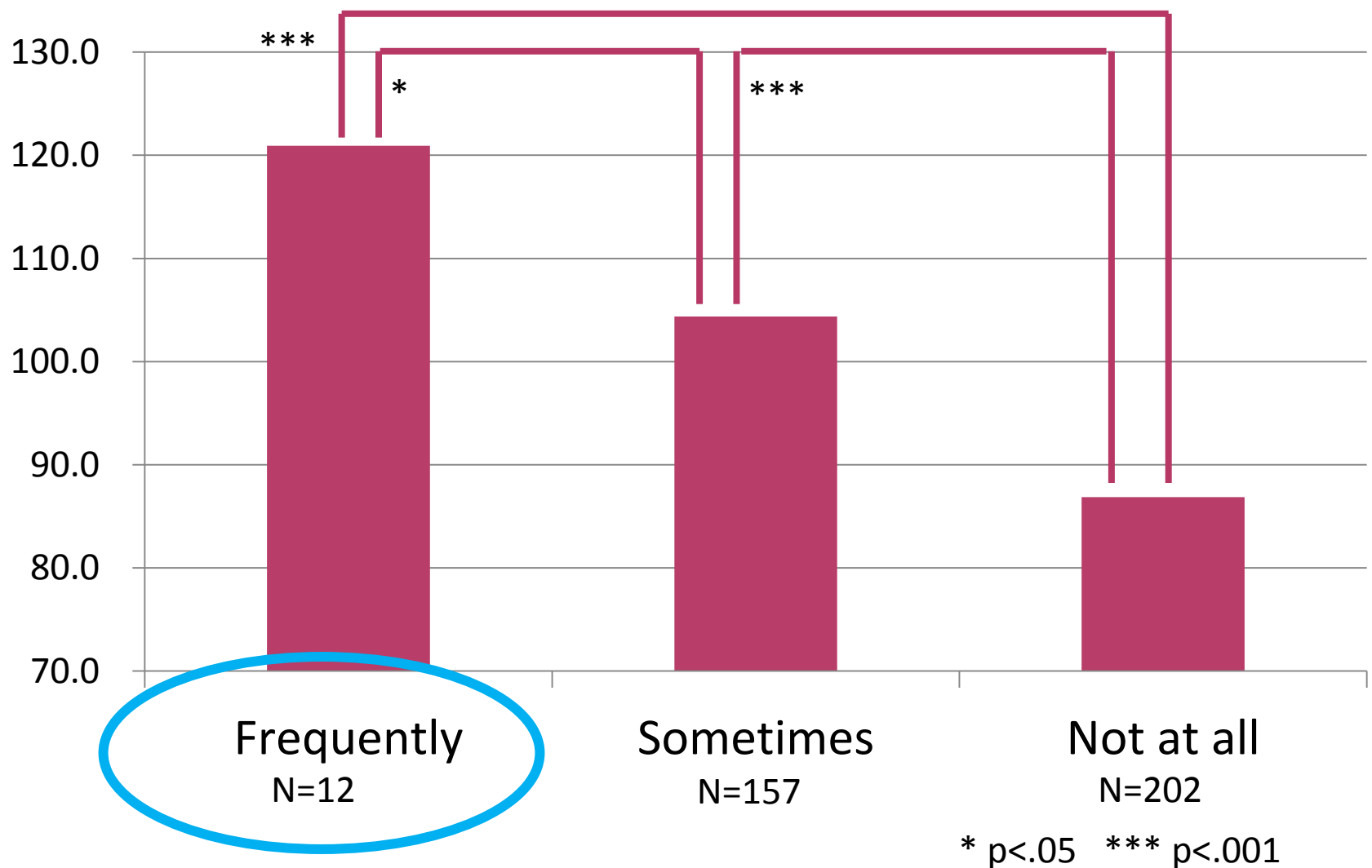


Figure 15. Utilization of Research in Nursing Practice and SRUC Scores

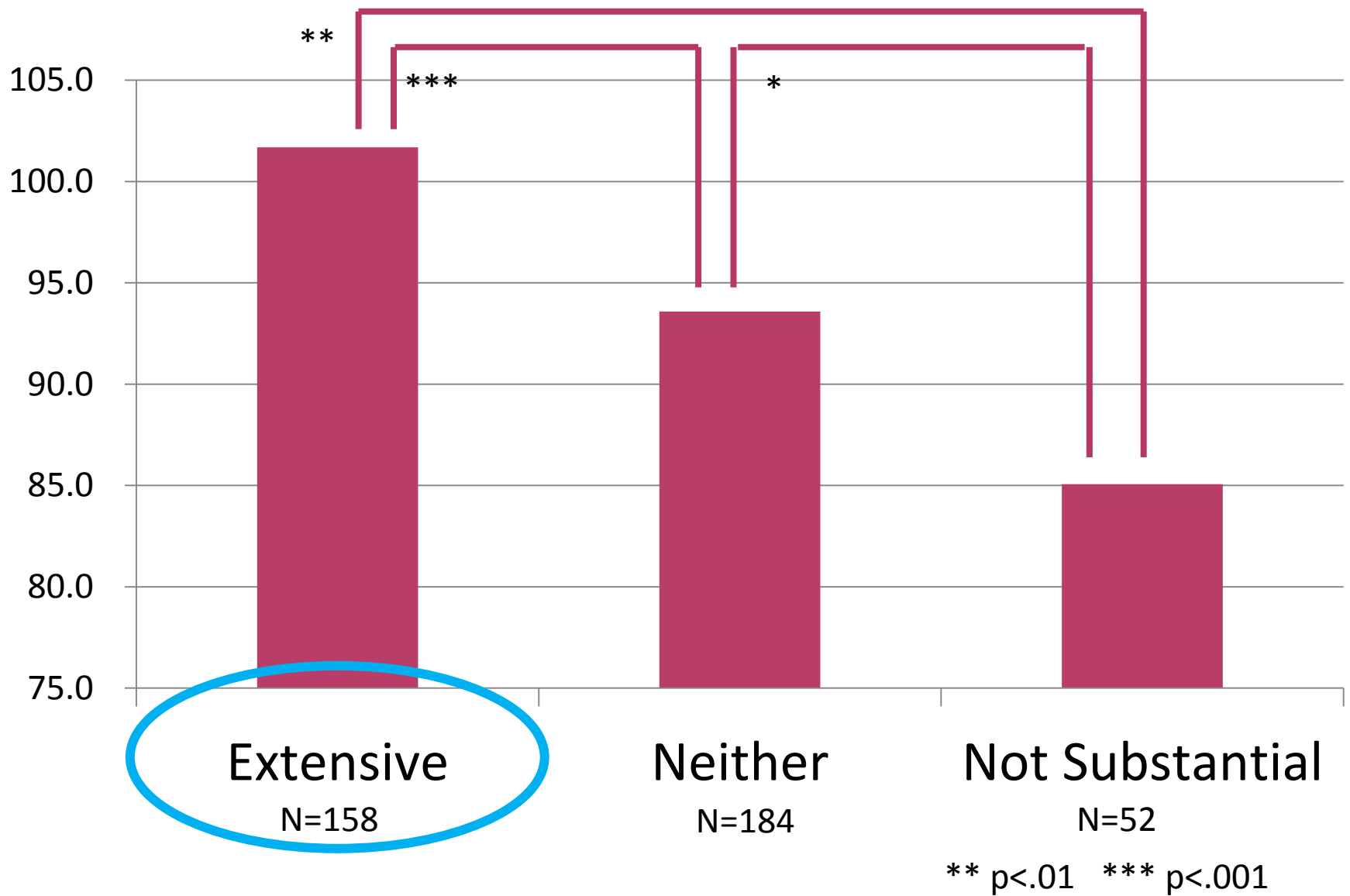


Figure 16. In-Service Education and SRUC Scores

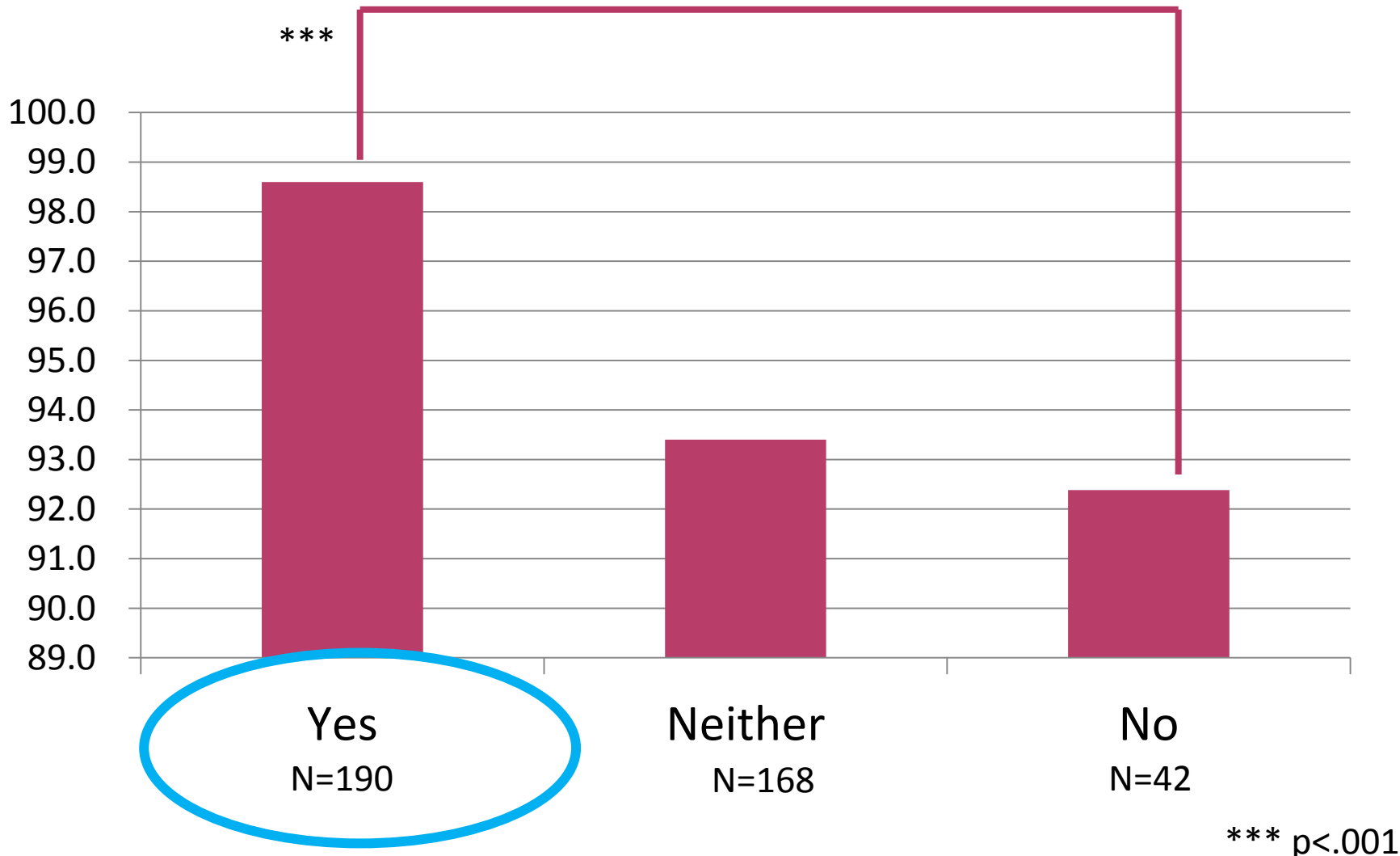


Figure 17. Support for Research from Superior and SRUC Scores

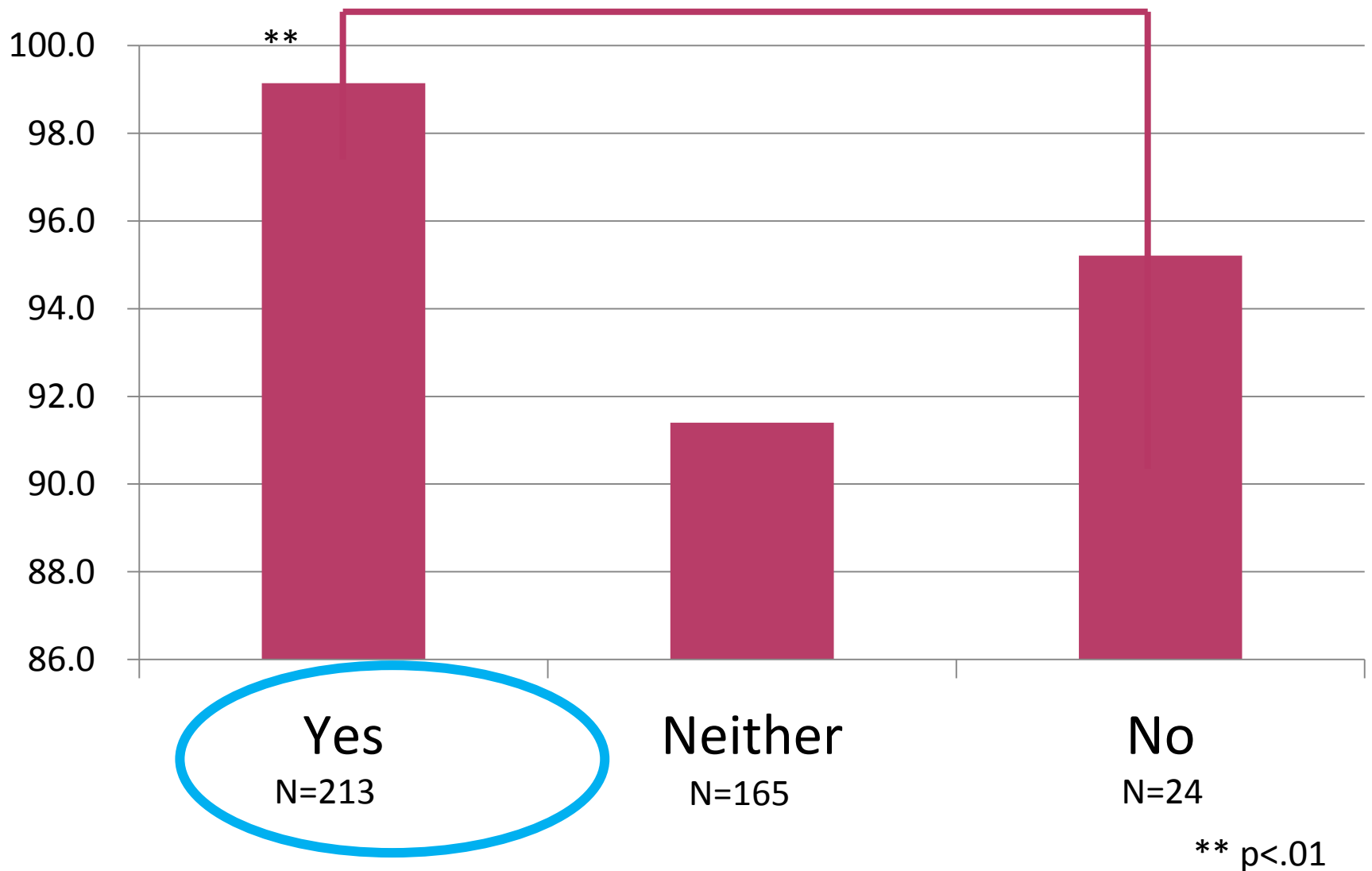


Figure 18. Collaboration with Colleagues to Conduct Research and SRUC Scores

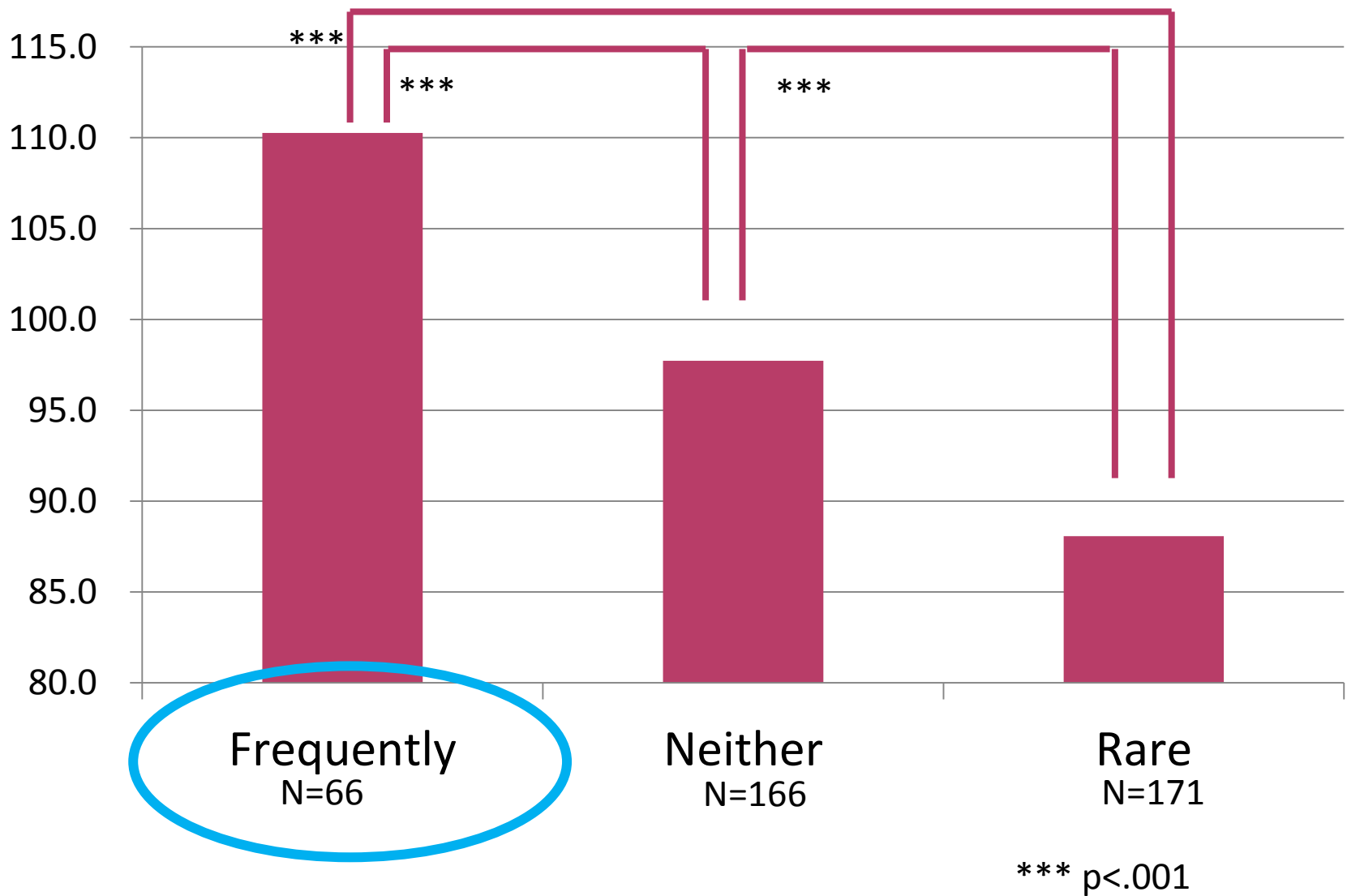


Figure 19. Frequency of Discussing with Colleagues about Research and SRUC Scores

Important Factors Related to SRUC scores

: Stepwise multiple regression analysis

Independent variables

Nursing Characteristics

Job Title

Teaching or Instructing Other Nurses

Research and Research utilization

Opportunity to Think about Research Utilization

Knowledge of Nursing Research

Perceived Importance of Research

Research Experience

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Utilization of Research in Nursing Practice

Learning Characteristics

Participation in Continuing Education

Reading Professional Journals

Hours of Study/Week

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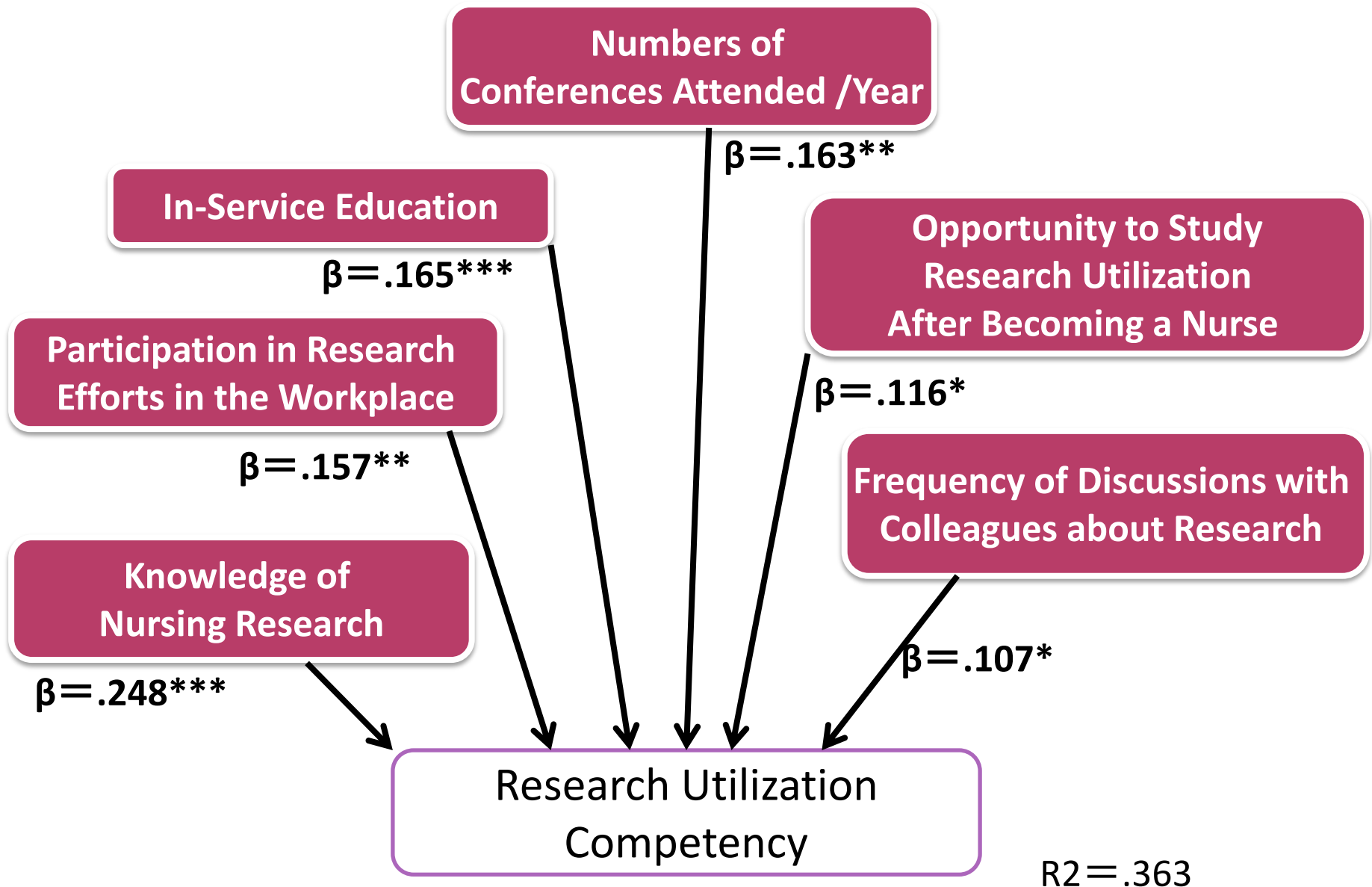
Support for Research from Superiors

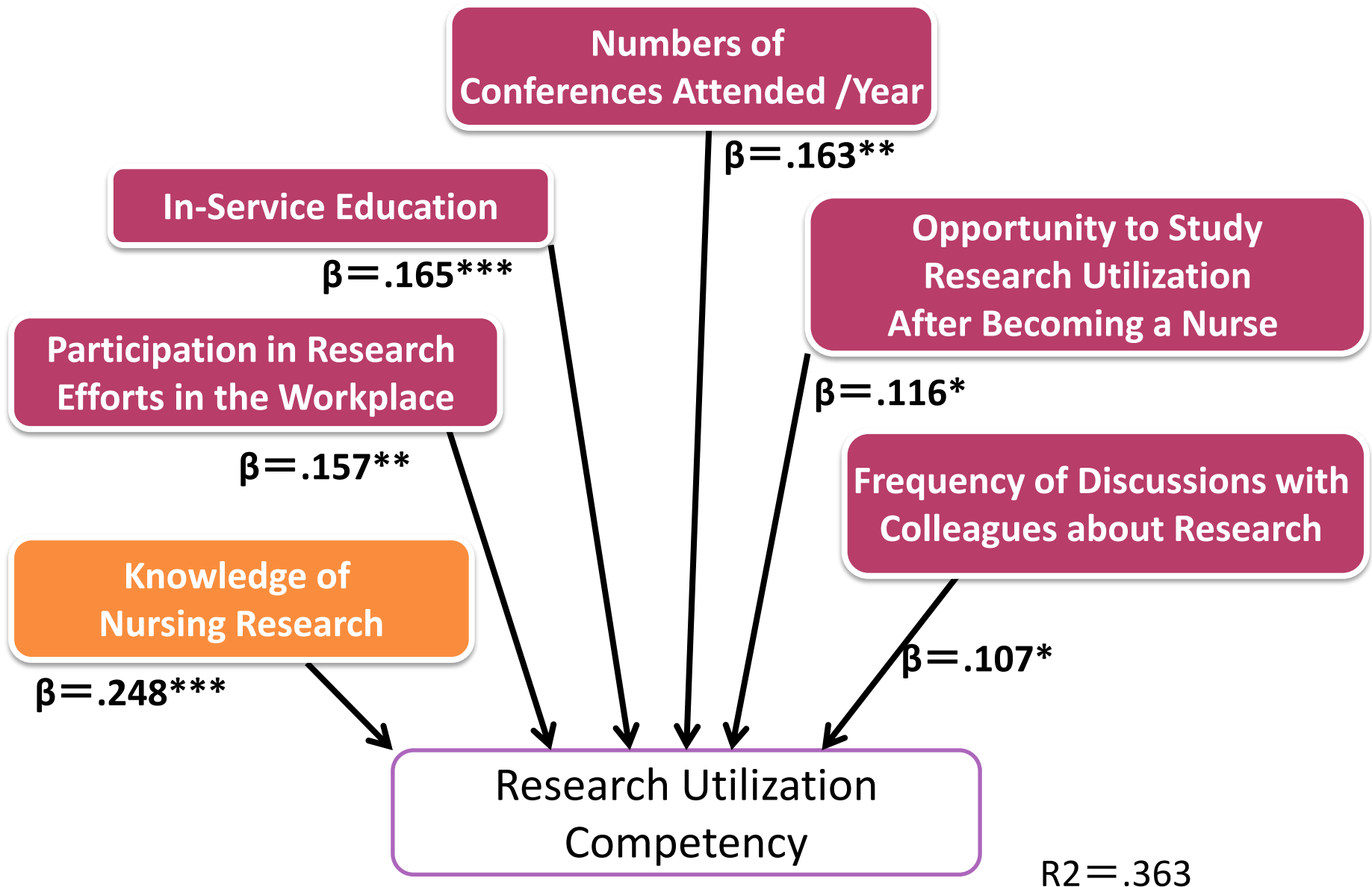
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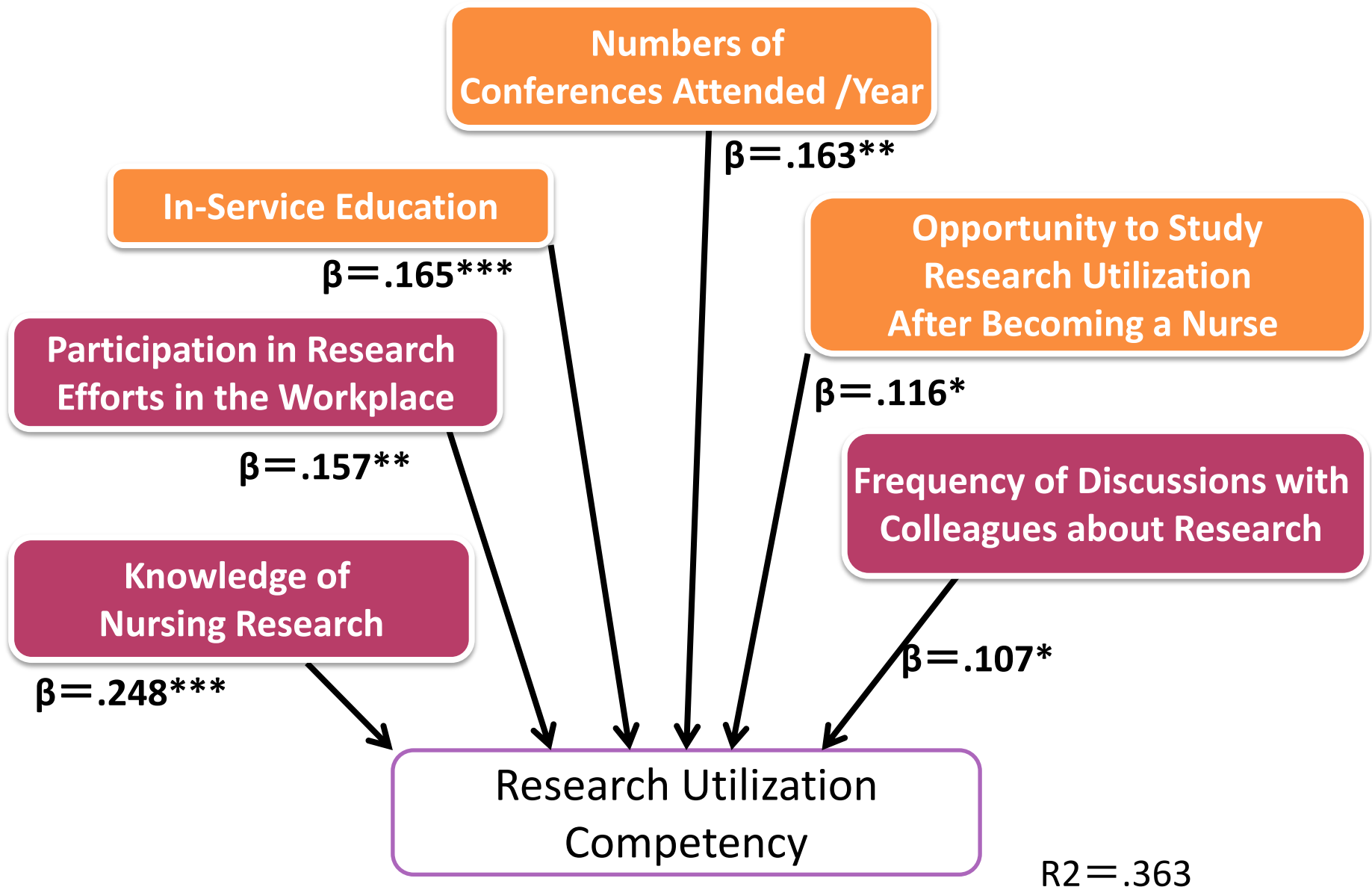
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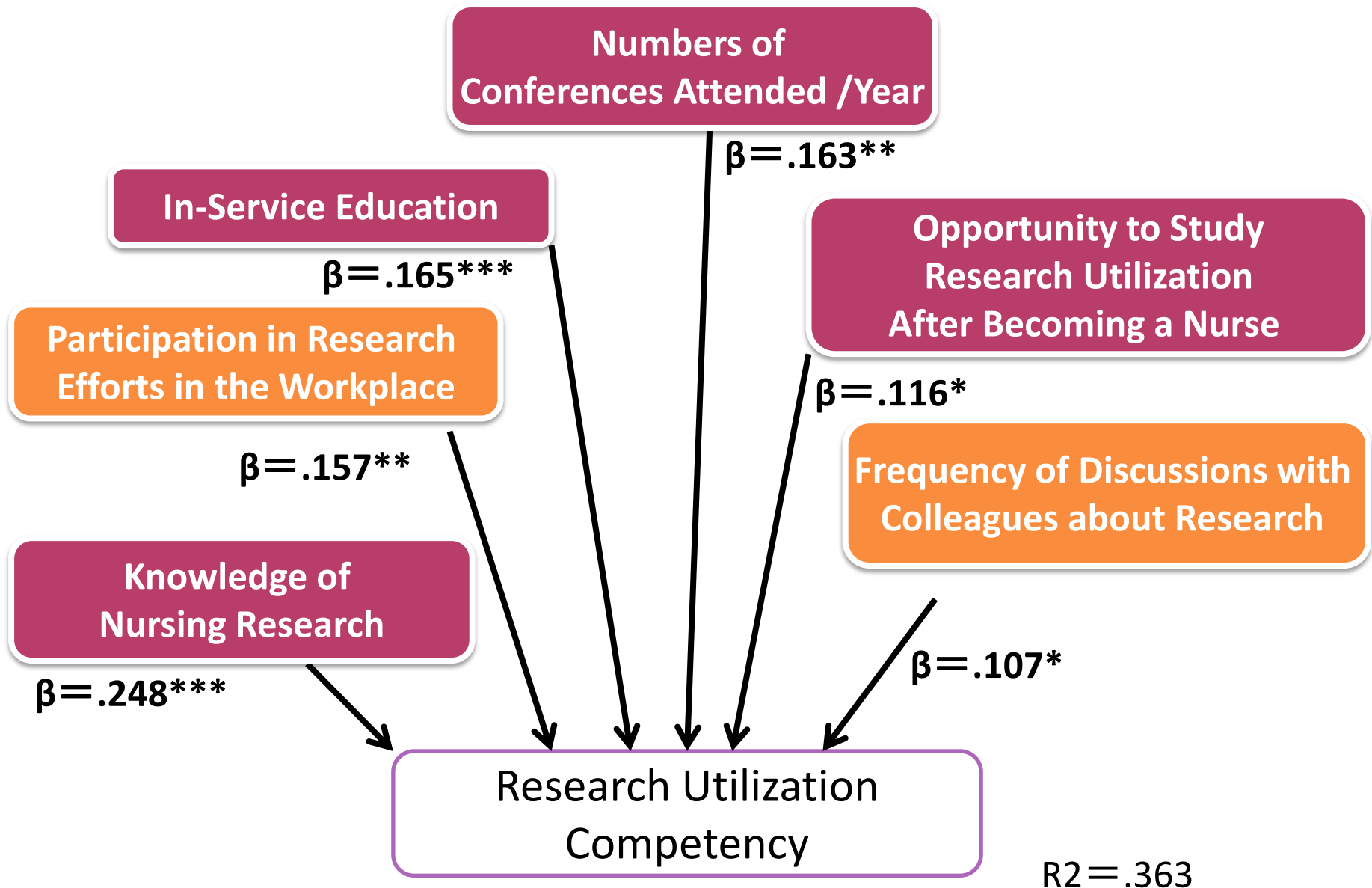
Research Utilization Competency

Dependent variable









Conclusions

- **There are 6 factors crucial to research utilization competency, and having sufficient knowledge of nursing research is the most important.**
- **Participation in continuing education or attending academic conferences and being in a work environment in close contact with research are crucial to improving research utilization competency.**
- **One topic for the future is whether or not current basic nursing education and continuing education are adequate for nurses to obtain sufficient knowledge of nursing research.**
- **Another topic is to assess whether or not work environments are appropriate in terms of their close contact with research.**