Teacher Self-efficacy, Autonomy, Innovation, Empowerment, and Faculty Development: What is the Connection?

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- **Disclosure**
  - I have no conflict of interest and have received no sponsorship or commercial support for this research.

- **Objectives:**
  - Participants will be able to
    - identify the relationship between teacher self-efficacy, autonomy, innovation, empowerment and faculty development,
    - Relate findings to their own teaching.

Introduction

- Switch from teacher-centered to learner-centered

- Faculty members need to be empowered to make this change

Purpose

- To determine the relationship between teacher self-efficacy, autonomy, innovation, empowerment, and faculty development.

Literature Review

- 56% of faculty indicated they use the conventional teacher-centered approach (Brown, Kirkpatrick, Greer, Matthias & Swenson, 2009)

- Benefits of use of innovation: makes it real, learning together, and reflection on learning
  Barriers: limited resources, restrictive policies, and resistant faculty
  Administration issues: support to create a learning environment that supports innovation (Elmers. 2016)

- Faculty were accepting and supportive of innovation because it facilitated and enhanced their teaching
  More likely to be innovative if they would be used long term and administrative support and faculty development (Fiedler, Giddens, & North, 2014)

- Self-efficacy and colleague solidarity are mediating roles in high innovator behavior (Xin, XU, Liu, Hou, Lui, Ma, 2018)

- Faculty who scored higher in psychological empowerment used more empowering teaching strategies
  Coursework in teaching strategies did not significantly correlate with the number of empowering teaching strategies (Brancato, 2000)

- Nurse educator who reported high levels of empowerment had high levels of job satisfaction and greater opportunities in the academic environment (Dunker, 2014)

- Seeing teaching as an art is more holistic and transformative than to see it as a craft (Lupton, 2013)

Methods

- Participants were recruited by word of mouth, social media and email (n=80)
- Data was collected using:
  - Teacher Self-efficacy (TSE) (Schmitz & Schwarzer, 2000)
  - Teaching Autonomy Scale (TAS) (Pearson, 2006)
  - Measure of Individual Innovative Behavior (MIIB) (Kleysen & Street, 2001)
  - Psychological Empowerment in the Workplace (PEW) (Spreitzer, 2017)
- Emails and requests on social media sent to potential participants requesting participation.
- Data were collected electronically using Qualtrics.

Demographics
n=80

- 93% Female
- 90% Caucasian
- 75% < 20 years teaching
- 68% at current job for <10 years
- 66% MSN, 33% Doctorate
- 60% MSN in nursing education
- 31% PhD, of those 72% Nursing 12% Education, 16% other
- 52% teach in BSN, 35% in AND
- 95% moderately satisfied or very satisfied with teaching ability
- 85% consider themselves to be an innovator or early adopter
- 65% said they lectured 50% or less

Faculty Development Attendance

- 63% Conference
- 74% Webinar
- 62% internal session
- 20% local workshop
- Frequency yearly
  - 1-2 30%
  - 3-4 42%
  - 5-6 10%
  - 7 or more 6%
  - None 11%
- 74% are likely or very likely to change teaching after attending FD.

Findings

- Initial review of data
  - No correlation between TAS and TSE, MIIB, PEW
  - **TSE statistical significant correlation with MIIB** (r=.35, p=.001) and **PEW** (r= .38, p=.000)
  - **MIIB and PEW** (r=.50, p=.000) **also positively correlated**

- Attendance at faculty development opportunities & TAS, TSE, MIIB, PEW
  - No statistical significant difference with within groups
    - $F_{(16, 63)}$= 1.43, p=.13, Wilks' Lambda=.74
  - **Statistical significant difference with MIIB between groups**
    $F_{(4,74)}$=3.20, p=.018, partial eta squared=.15
    - Those who attended 5-6 events reported higher means on MIIB m=5.21

- No other statistical significant differences with other demographics

Findings (con't)

- ■ MANCOVA- using higher and lower TSE groups and PEW, MIIB total means
  - – No statistical significant difference within TSE groups

    $(F (3,76)= 2.57, p=.06,$ Wilks' Lambda$= .91)$

  - – **On TSE between groups had higher empowerment and innovative behaviors means**
    - ■ PEW higher TSE group m=6.14, lower TSE group m=5.77

      $F(1, 78)= 6.73, p=.01,$ partial eta squared$= .08$

    - ■ MIIB higher TSE group m=4.87, lower TSE group m=4.54

      $F(1,78)=4.02, p=.049,$ partial eta squared$= .05$

Findings (con't)

- MANCOVA- using higher and lower TSE groups and PEW Questions

  Statistical significant difference within TSE groups

  $F(12,67)=2.06$, $p=.03$, Wilks' Lambda= .73, partial eta squared= .27

  - On PEW between groups statistical signficant

    - **Question 4: they were confident in their performance**
      - Higher m=6.23, Lower m=5.54
      - Higher innovative behaviors m=6.24, Lower m=5.49

    - **Question 5: self-assured**
      - Higher m=6.14, Lower 5.49
      - $F(1,78)=10.60$, $p=.002$, partial eta squared= .12

    - **Question 6: felt they had mastered the skills needed**
      - Higher m=5.95, Lower m= 5.000
      - $F(1,78)= 14.40$, $p=.000$, partial eta square= .16

Findings (con't)

- MANCOVA- using higher and lower TSE groups and MIIB Questions

  No statistical significant difference with MIIB questions as a whole $F(14,65)=.928$, $p=.53$, Wilks' Lambda$=.83$, partial eta squared$=.17$

  - On MIIB questions between groups statistical significant
    - **Question 1: having opportunities to improve**
      - Higher TSE m= 5.51, Lower TSE m=4.89
      - $F(1,78)= 9.561$, $p=.003$, partial eta square= .11
    - **Question 4: opportunities to generate new ideas to address problems**
      - Higher TSE M=5.05, Lower TSE m=4.68
      - $F(1,78)=4.64$, $p=.034$, partial eta square=.06

Findings (con't)

- MANCOVA- using higher and lower MIIB groups and PEW questions * alpha .01
  - **Statistical significant difference with MIIB questions as a whole**
    $F(12,67)=.2.50$, $p=.009$, Wilks' Lambda= .69, partial eta squared= .31

  - On individual PEW questions statistical significant
    - **Question 4: they were confident in their performance**
      - Higher innovative behaviors m=6.24, lower m=5.49
      - $F(1,78)= 16.66$, $p=.000$, partial eta square= .18
    - **Question 5: self-assured**
      - Higher innovative behaviors m=6.22, lower m=5.34
      - $F(1,78)= 21.33$, $p=.000$, partial eta square= .22
    - **Question 6: felt they had mastered the skills needed**
      - Higher innovative behaviors m=5.98, lower m=4.91
      - $F(1,78)= 18.53$, $p=.000$, partial eta square= .19

Implications

- In nursing education faculty need to feel like they will be successful, have opportunities to improve and to generate new ideas.

- Nursing administration need to provide support and faculty development to encourage faculty members to be innovation and creative in their teaching.

- For both TSE and Innovative Behaviors for faculty to feel successful and to be innovative they need to feel confident, assured and that they have mastered their teaching skills

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