Self-Efficacy in Emerging Nurse Leaders: The Effects of a Virtual Community of Practice on Nurses in a New Practice Role

Kevin Daugherty Hook, DNP, MS, MA, AGPCNP-BC, CRNP

Background

Health care requires effective nurse leadership (Fiset, Luciani, Hurtibise, & Grant, 2017). Self-efficacy is an important feature of effective leadership and should be assessed and supported (Cox & Simpson, 2016).

Self- efficacy is not static but affected by an interaction with one's organization and one's role (Gilmartin, 2014).

Communities of Practice (CoPs) are "groups of people who share a concern, a set of problems…about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). CoPs are an important component of leadership development.

Hannah, S., Chan, B., & Walumbwa, F. (2012)

Objectives

To assess the effects of a virtual Community of Practice (CoP) on the self-efficacy of clinical nurse educators working in new roles in a large long-term and skilled nursing organization operating in multiple sites across the U.S. Badura's theory of self-efficacy includes four spheres of influence on self-efficacy. The aim of the CoP was to assess the effects of the influence of "vicarious experiences."
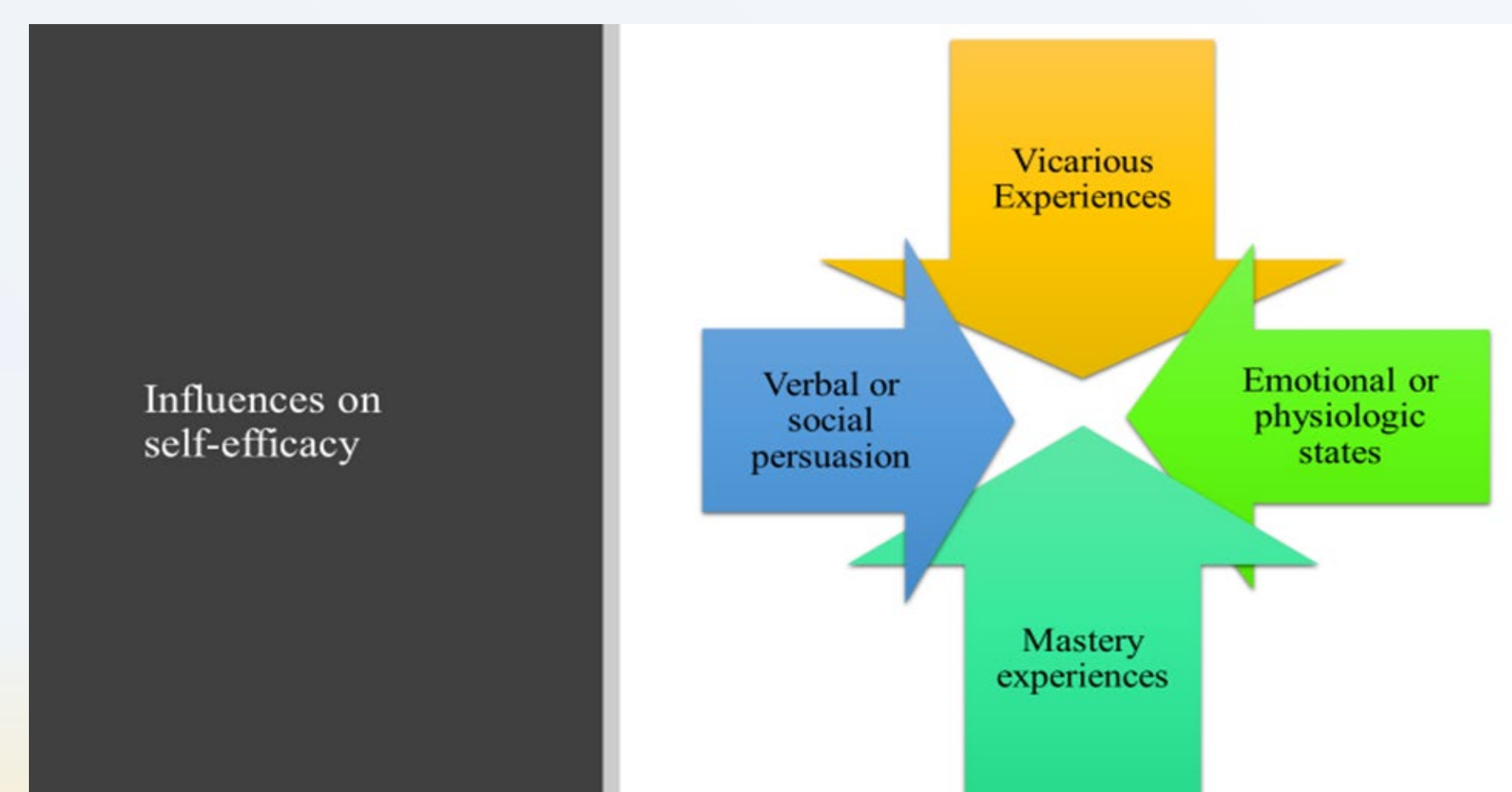
Bandura, A. (1997).

Methods

A one group pre-test/post-test research pilot was used. A convenience sample captured participants who had specific job titles reflecting specific new clinical educator roles. Having a prior leadership role was not an exclusion.

The pilot study used the Leader Efficacy Questionnaire (Hannah & Avolio, 2013) to assess effects of leader action, means, and self-regulation. Three open-ended questions assessed overall effects of participation in a virtual Community of Practice on leadership confidence.

The intervention consisted of six one-hour Community of Practice Zoom sessions to provide for visual interaction among the participants. Sessions were informal but began with a leadership question to stimulate conversation.

Results

Post intervention, the total, mean and median scores increased. Wide variances occurred between total minimum scores and total maximum scores with some participants ranking themselves lower post-intervention.

	N	Min	Max	Median	Mean	Std Dev
Pre-Test						
Total	28	1250	1970	1610	1622.86	180.43
Action	28	290	640	475	485.72	91.43
Means	28	270	640	525	503.57	95.96
Self-Reg	28	410	720	635	633.57	64.13
Posttest						
Total	28	1040	2010	1720	1708.21	229.99
Action	28	50	650	530	504.64	119.18
Means	28	220	650	565	533.93	99.86
Self Reg	28	350	790	675	669.64	81.17

Wilcoxon Signed Ranks Test suggested significant effects in the participants' overall rating of self-efficacy (z = -2.139, p= 0.032). All three sub-scales demonstrated significant differences as well.

	z	Asymp. Sig. (2-tailed)
Total Post Score/Total Pre-Score	-2.139(a)	.032
Post Action/Pre-Action	-1.961(a)	.050
Post Means/Pre-Means	-2.11(a)	.035
Post Self-Regulation/Pre-Self-Regulation	-2.69(a)	.007

Results

Eight participants scored lower on Action self-efficacy, eight participants scored lower on Means self-efficacy and six participants scores lower on the Self-Regulation subscale, suggesting some participants had large variations in their reactions to the effects of the CoP.

a. Post total Score < Total Score; b. Post Total Score > Total Score; c. Post Total Score = Total Score

		N	Mean Rank	Sum of Ranks
Total Post Score/Total Pre-Score	Lower scores	7(a)	14.29	100.00
	Higher scores	20(b)	13.90	278.00
	Ties	1(c)		
Post Action Score/ Pre-Action Score	Lower scores	8(a)	14.63	117.00
	Higher scores	20(b)	14.45	289.00
Post Means Score/Pre-Means Score	Lower scores	8(a)	11.56	92.50
	Higher scores	18(b)	14.36	258.50
	Ties	2(c)		
Post Self-Regulation Score/Pre-Self-Regulation Score	Lower scores	6(a)	14.17	85.00
	Higher scores	22(b)	14.59	321.00

Spearman's rank-order correlations suggested no correlations between demographic data and self-efficacy subscales.

Independent Variable	Action	Means	Self-Regulation
Age	r_s = -.078, p = .692	r_s = -.253, p = .194	r_s = -.265, p = .174
Time in Role	r_s = .110, p = .578	r_s = .110, p = .578	r_s = -.049, p = .806
Prior Formal Leadership	r_s = -.058, p = .768	r_s = -.378, p = .048	r_s = -.419, p = .027
Years as RN	r_s = -.207, p = .291	r_s = .056, p = .777	r_s = -.272, p = .162
Education	r_s = -.121, p = .540	r_s = .248, p = .204	r_s = -.214, p = .275
Number of Calls	r_s = .269, p = .166	r_s = -.104, p = .597	r_s = .327, p = .089

Participant perceptions of the Community of Practice sessions and its effects, despite the decline in some self-rating scores, were positive with comments citing the value of sharing, support, and creative exploration of leadership styles.

Conclusions

Virtual Community of Practice (CoP) sessions had an impact on leader efficacy scores. Virtual Community of Practice sessions are a simple and effective tool to support nurse leaders in gaining self-efficacy in new roles. Participants reported that a virtual Community of Practice was a positive experience that many would like to continue.

The wide range of pre- and post-intervention scores suggests there are self-efficacy spheres where more support is needed as well as other spheres where participants may quickly excel through the CoP experience.

There were no correlations between participant characteristics and outcomes, suggesting that all new nurse leaders would benefit from participation in a CoP. Executive leadership should increase opportunities for participation in a CoP to allow for increased peer-to-peer support.

Further research should focus on mechanisms that work best to support the self-efficacy of nurse leaders with or without prior leadership experience. More research into the relationship between a CoP and leadership development should be explored.

Selected References

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Acknowledgments

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