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Does the Manuscript Format Improve Dissemination of PhD Dissertation Research?: A Retrospective Cohort Study

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Conflicts of interest

No conflicts to disclose



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Introduction

- Dissemination of PhD dissertation research through peer-reviewed publications important for
 - Continued development of nursing science
 - Career trajectory of PhD graduates
- Dissemination of dissertation research via publications often delayed
 - Competing demands of new professional role post graduation
 - Translating a thesis into publishable papers is more difficult than anticipated
 - Advisor/advisee relationship changes after graduation, mentorship for manuscript development needs to be negotiated



Introduction

- 5 chapter dissertation is traditional format for PhD dissertations
- Manuscript format dissertation adopted by many PhD programs in Nursing (Graves et al. *Journal of Nursing Scholarship*, 2018)
 - Of 79 schools of nursing
 - 71% offered manuscript format
 - 59% offered both manuscript and traditional formats
- Little is known about its potential to accelerate dissemination of research findings in peer reviewed journals compared to the traditional dissertation format



Program history

- Mid 1990s DNSc program initiated
 - Part time program
 - First graduate 1999
- 2008 PhD program initiated
 - Full time
 - 2006 Cohort had option to remain in DNSc program or change to PhD program (3 credits additional coursework for PhD)
 - First PhD graduate October 2009
- 2011 Columbia University granted PhD to all DNSc graduates
- 2015 Formalized 3 manuscript option as choice for PhD students
 - Prior to 2015, only select students had option for alternative format



Purpose

- Share the experience of one School of Nursing who formally adopted the manuscript option in 2015 as a choice for PhD students
 - Examine dissemination of dissertation research by 105 graduates of Columbia Nursing's PhD program (1999-2017)
 - Compare timing and publication output
 - Traditional format dissertations
 - Substudy/manuscript dissertation format
 - Examine the timing and number of publications stemming from dissertation research at one school of nursing by dissertation format
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Purpose

- Exemplars of student dissertations using the manuscript format
- Lessons learned along the way



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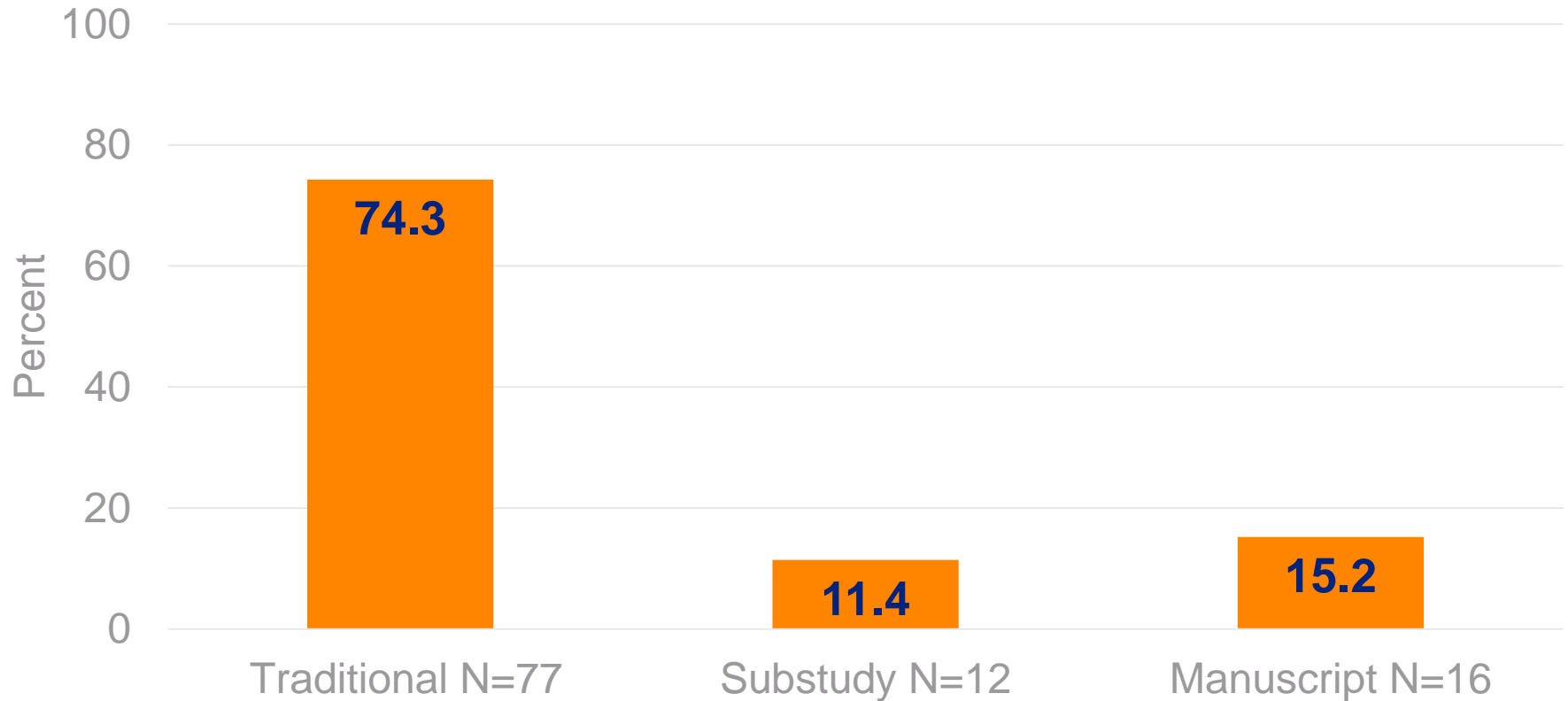
Methods

- Identify PhD graduates (1999-October 2017)
 - PhD database
 - Name, year of defense, title of dissertation
 - Categorize dissertations by format
 - ProQuest search by name and/or dissertation title
 - Categorized as traditional, substudy, or manuscript format
 - Publications
 - PubMed
 - Number & years of publication of first authored work
 - Data analysis
 - Descriptive statistics, Wilcoxon rank sum test
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Results

Dissertation format style

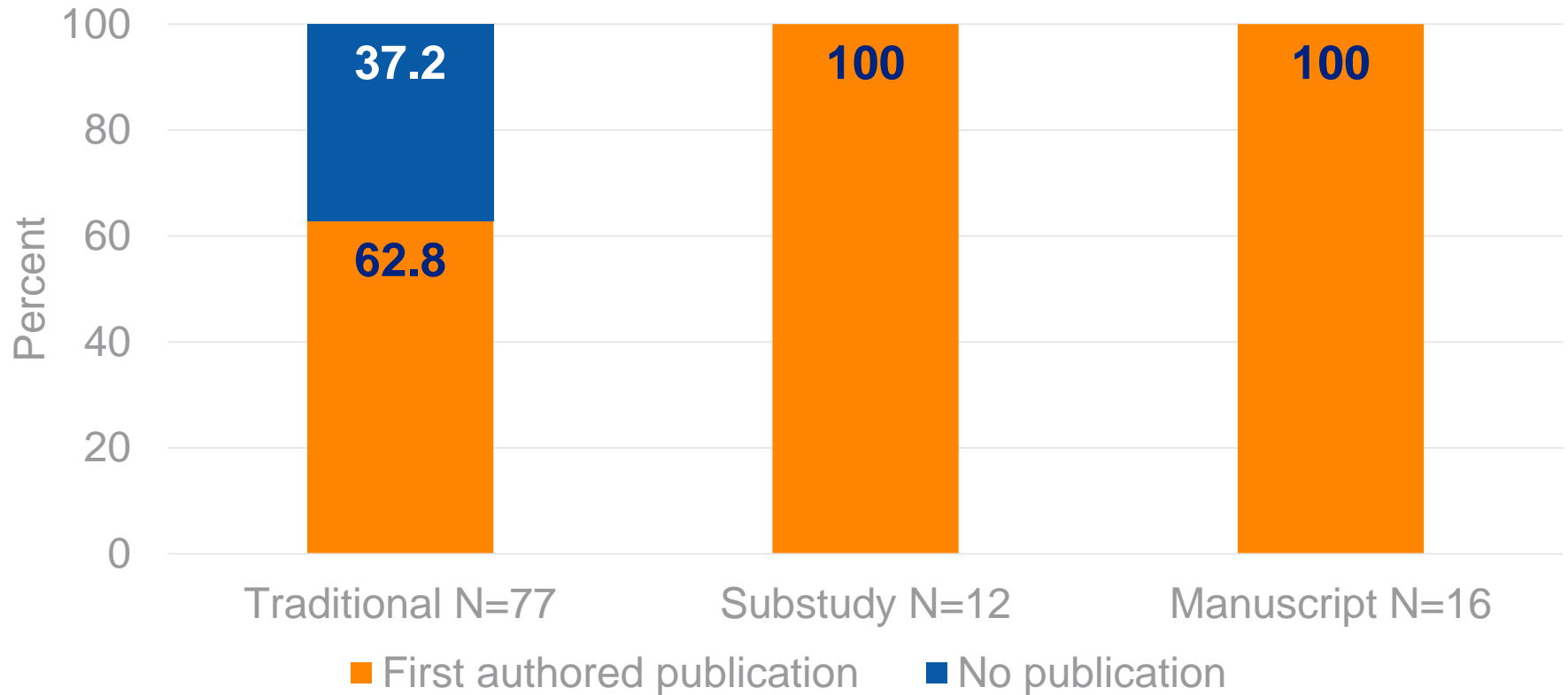


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Results

Dissemination in Peer Reviewed Journal



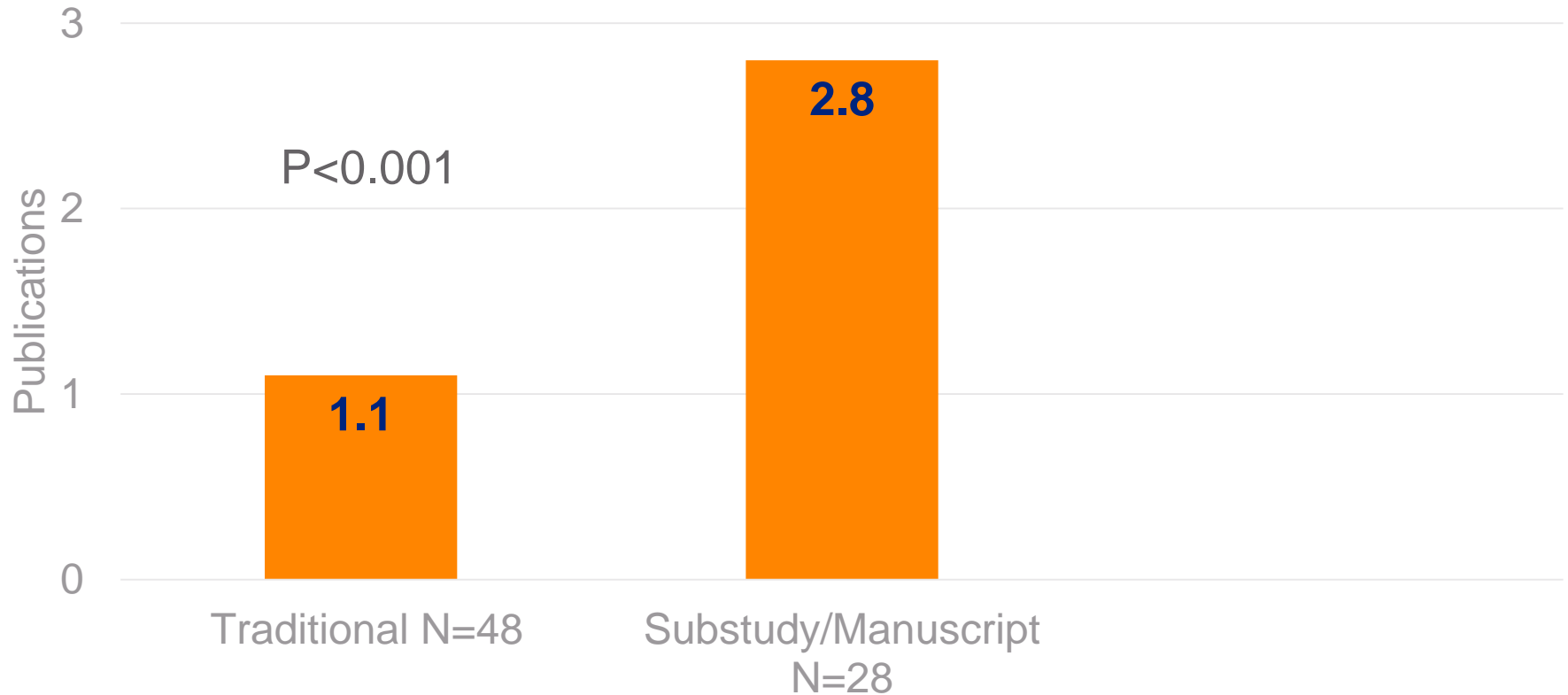
Results

- Timing of publication
 - Traditional format
 - Median time to publication: 1.5 years after graduation
 - Range -2 to 8 years
 - Substudy/Manuscript format
 - Median time to publication: 0 years (year of graduation)
 - Range -3 to 3 years
- Shorter time to publication for Substudy/Manuscript option
 $p=0.003$



Results

Mean number of peer reviewed publications



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Manuscript format dissertation exemplars

Student	Dissemination	
1 (2013)	Assessing potential of a diabetes self-management technology intervention for underserved adults with type 2 diabetes	
	1. Systematic review and meta-analysis of effect of technology interventions on glycemic control	2016: ADA 76 th Scientific Sessions; AMIA Annual meeting 2017: <i>Journal of the American Medical Informatics Association</i>
	2. Characteristics and technology training of adults who participated in MoDD RCT	2017: ADA 77 th Scientific Sessions 2017: <i>The Diabetes Educator</i>
	3. Assessing the translation of MoDD to clinical practice using RE-AIM framework	2018: ENRS Scientific Sessions 2018 AADE Annual Conference Currently unpublished



Dissertation exemplars

Student	Dissemination	
2 (2013)	Nonsuicidal self-injury (NSSI) among gender minority populations	
	1. Integrative review to examine prevalence of NSSI among LGBT groups and examine risk factors associated with NSSI	2016 – ENRS Scientific Sessions 2016 – <i>Journal of Clinical Nursing</i>
	2. Experiences of transmasculine spectrum people who report nonsuicidal self-injury	2017 – International Society for the Study of Self Injury 2017 – Transgender Health Conference 2018 – <i>Journal of Counseling Psychology</i>
	3. Rates of NSSI and correlates of past-year NSSI in community sample of transgender people	2017 – GLMA Nursing Summit 2018 – <i>Psychiatry Research</i>



Dissertation exemplars

Student	Dissemination	
3 (2015)	Factors associated with telehealth initiation among heart failure patients at home	
	1. Integrative review examining factors affecting telehealth acceptance among adults with heart failure	2017 – AMIA Annual Meeting 2017 – <i>Telehealth Journal and E-Health</i>
	2. Factors associated with initiation of telehealth among home care adults with heart failure	2018 – ENRS Scientific Sessions 2018 – <i>Home Health Care Services Quarterly</i>
	3. Explore reasons for telehealth initiation in patients with heart failure receiving home care	2018 – AMIA Annual Meeting Currently unpublished



Across exemplars

- 3 papers integrated into one theme
- Literature review first published paper
- Mixed methods approach
- Research focuses on underserved groups
- Interdisciplinary dissemination



Lessons learned

- Clear guidelines regarding expectations must begin early
 - Proposal development for manuscript option format
 - Chapter 1 – Significance, aims, theoretical framework, target journals and proposed authorship for publications
 - Chapter 2 – Literature review (Systematic, Integrative, Scoping depending on topic and research question)
 - Must be completed at time of proposal defense
 - Chapters 3 and 4 – methods for papers 2 and 3
 - Resources for mentoring in publication process
 - Sponsors; Manuscript writing workshop
 - Peer review rehearsal sessions for conference presentations
-



Study Limitations

- Reflects the experience of 105 graduates from one PhD program
 - Non dissertation research or co-authored publications not examined
 - Other factors may have influenced dissemination productivity
 - Change from DNSc to PhD
 - Part time to full time
 - Retrospective analysis limited to one form of dissemination, peer reviewed PubMed indexed journals, and did not examine other types of dissemination
 - Conference presentations
 - Non PubMed indexed journals
-



Discussion/Conclusions

- Only 2/3 of students with traditional format versus 100% of substudy/manuscript format dissertations published their research in a peer reviewed journal
 - Psychology – of 910 PhD dissertations, only 25.6% were ultimately published in peer reviewed journals
 - Publication lag time 2-3 years (Evans et al., *PLOS One*, 2018)
- Timeliness and number of publications from dissertation research was higher for PhD students who utilized the substudy or manuscript format compared to traditional dissertation format



Discussion/Conclusions

- Publication of dissertation research in peer-reviewed journals
 - Disseminates the science
 - Provides invaluable mentored experience with journal selection, manuscript submission, responding to reviewer comments, etc.
 - Makes graduate more competitive for postdoctoral positions and/or other “next steps”
- Manuscript/substudy dissertation format should be encouraged by PhD programs as an option to improve dissemination of PhD nursing research
- Requires faculty and PhD student commitment to assure success

