

## ORIGINAL RESEARCH

# Motivation for participating in a journal club: Perceptions of the participants

Stacy Blake<sup>1</sup>, Lana Teegarden<sup>1</sup>, Ashley Peacock<sup>1</sup>, Janet Crumley<sup>1</sup>, Ashley Stumpenhous<sup>1</sup>, Amber Leone<sup>1</sup>, Jessica Conant<sup>1</sup>, Todd Fullerton<sup>1</sup>, Zipporah Gachoya<sup>1</sup>, Peggy Ward-Smith\*<sup>2</sup>

<sup>1</sup>Research and Innovations Council, Nursing Service, North Kansas City Hospital, North Kansas City, MO, United States

<sup>2</sup>School of Graduate Studies, University of Missouri, Kansas City, United States

**Received:** August 10, 2017

**DOI:** 10.5430/jnep.v8n2p93

**Accepted:** October 10, 2017

**URL:** <https://doi.org/10.5430/jnep.v8n2p93>

**Online Published:** October 20, 2017

## ABSTRACT

The purpose of this survey study was to describe the motivation and perceived outcomes from registered nurses (RNs) who participated in a hospital-based journal club. Using a web-based format, data were collected from 40 registered nurses who completed at least one journal club activity in the previous six months. The majority of these participants (78%) disclosed career ladder points as the primary reason for completing the activity. The most frequently cited perceived outcome was an increased desire to provide evidence-based care. Age and number of years as a RN influenced the perception of the benefit of journal club participation.

**Key Words:** Journal club, Career ladder, Evidence-based care

## 1. INTRODUCTION

Journal clubs, offered in acute care inpatient settings, provide a format for registered nurses (RNs) to identify, review, and critique current research specific to their clinical practice. Based on their review of 10 articles, Haggman-Laitila and associates<sup>[1]</sup> determined that the top five outcomes of journal club participation included (1) improved skills for becoming familiar with research, (2) being enthusiastic about nursing development, (3) professional and personal growth, (4) learning in nursing, and (5) implementation of research evidence in clinical practice. While each of these outcomes were identified, the review was not capable of ranking the outcome, or determining if demographic data, such as age or years of practice, influenced the perceived outcomes.

Despite the positive outcomes associated with journal club

participation, there are barriers specific to nurses working in clinical settings. O’Nan<sup>[2]</sup> identified that these barriers are associated with faster patient turnover rates, the increasing complexity of care required for patients with higher acuity conditions, the infusion of technology into plans of care, and the evolving computerized charting systems. These variables are unique to clinically based nurses, resulting in the need for journal club participation to be easily accessible, available during non-scheduled work hours, and being perceived as important for professional development. Survey data from clinical nurses working in a rural healthcare facility describes time and applicability of the article under review as critical barriers toward journal club participation.<sup>[3]</sup> Thus, barriers that impede journal club participation for clinical nurses may alter the perceived benefits of this professional activity. The purpose of this survey feasibility study was to obtain data

\*Correspondence: Peggy Ward-Smith; Email: [wardsmithp@umkc.edu](mailto:wardsmithp@umkc.edu); Address: School of Graduate Studies, University of Missouri, Kansas City, United States.

from clinically based nurses that describe and rank the benefits of journal club participation, from their perspective. In light of the varied study results, this was done to determine the impact the work setting had on journal club participation and perceived barriers.

## 2. THE HISTORY OF JOURNAL CLUBS

The first known journal club was organized by Sir William Osler in 1875.<sup>[4]</sup> This Canadian physician used journal clubs as a method of sharing scant educational resources. Patient case presentations were used to update clinical knowledge and infuse new findings into clinical practice. From their inception, the purpose of journal clubs was to translate knowledge into practice, creating evidence-based practice. Translating evidence into clinical practice has barriers. Reviewing the life experiences of Ignaz Semmelweis,<sup>[5]</sup> who advocated for handwashing as an intervention to prevent postpartum puerperal fever and death, articulates the challenges of creative and radical thinking.

Despite the myriad of literature describing the uses, benefits, and formats for journal clubs, no 'gold standard' has yet to be identified. Clinical specialty, participant demographics, and expected outcome have been identified as having an influence on the activity. Yet, the prevailing perception, based on a systematic review, is that journal club activities are the most well-respected strategy to critique and remain current with relevant health research.<sup>[6]</sup>

Journal club participation, for nurses working in clinical settings, provide the skill set needed to translate research evidence into practice, when appropriate. Just as important as knowing when to implement the change supported by the research, is knowing when the change is not appropriate for the clinical setting. Differing population demographics, resources, culture, or healthcare values need to be considered when deciding if implementation is appropriate. The ability to critically review research, and place it into the clinical site and care population assures proper use of resources. Thus, evidenced-based care should be a blend of the research evidence and the appropriateness of application.

## 3. THE JOURNAL CLUB

Participation in the journal club, at the study site, is open to all registered nurses (RNs) or graduate nurses (GNs) employed in any inpatient or outpatient department. Journal club activities include reading a selected research article and providing a critique of the article, using a provided format. There are several opportunities during the year to complete journal club activities. One month is allowed for the completion of each activity. Oversight for the journal club is provided by the Nursing Shared Governance Research and

Innovations Council, with the 'grading' of the responses performed by the Senior Director of Clinical Excellence. Motivation for participation in the journal club may be intrinsic, and done as a professional development activity, or extrinsic, to meet the requirements of the career ladder. A career ladder, originally described by Benner,<sup>[7]</sup> defines and describes activities nurses must master as they transition from novice to expert. The career ladder at the study site is described in a previous publication.<sup>[8]</sup> The career ladder, at the study site, allows nurses to become clinical experts and remain in direct care positions, while being recognized for their expertise.

## 4. METHOD

Previous research<sup>[8]</sup> assessed the ability of the online journal club in understanding the research process. Participation in this study was limited to nurses who completed the online journal club activities. Results of this study demonstrated that 50% of the participants' perceived that participation in an online journal club was beneficial. In an effort to compare this perception, data were collected from RNs who completed face-to-face, or on ground, journal club activities.

Once Institutional Review Board (IRB) approval was secured, all RNs and graduate nurses (GNs) who completed a journal club activity during the previous six months received a study invitational email (N = 171). Access to the study-specific survey was provided through a link, embedded within this email. As described in the Federal Policy for the Protection of Human Subjects (45 CFR 46), participants in this study were healthy adult volunteers, and study data were educational in nature, thus consent was implied upon submission of the survey responses. Eight of the invitational emailed were undeliverable, resulting in a study population of 163. The data collection site was available for 30 days, in which complete study data sets were received from 40 participants. This calculates to a 25% response rate. Gou<sup>[9]</sup> reports that, when incentives are not provided, a 27.7% response rates for online survey studies is the average. Thus, while low, this response rate is acceptable.

Study data consisted of responses to a 10 item Likert-scaled study-specific survey, a social desirability item, and demographic queries. Items on the study-specific survey were developed based on the results of a review of the literature. The review identified the most commonly cited benefits associated with journal club participation. Once all documented benefits were identified, members of the Research and Innovation Council used Q sort methods to identify the ones applicable to the study site. A social desirability item (Have you ever given up on something because you thought too little of your ability to succeed?)<sup>[10]</sup> was added to survey to

assess the tendency to respond in a favorable manner. Study data were being collected by colleagues of each participant, and at their worksite, thus the potential for biased responses existed. The inclusion of a social desirability item provided a method to statistically determine if response inflation was present. This item was only used to determine if the tendency existed, it was not used in any other calculations.

## 5. RESULTS

Responses were received from 40 individuals. Demographically, these participants (N = 40) described themselves as primarily female (n = 39; 97.5%). Age, in years, ranged from 25 to 68 (mean = 44.13, SD = 12.31). Years as a Registered

Nurse (RN) ranged from 1 to 48 (mean = 19.88; SD = 13.46), with years employed at the study site as an RN reported as between 1 and 34 (mean = 13.11; SD = 10.04). These data are displayed in Table 1.

Responses to the Social Desirability item (Have you ever given up on something because you thought too little of your ability to succeed?) are displayed in Table 2. Responses to this item were evenly distributed. This documents that study responses were unaffected by the desire to over report or under report benefits associated with journal club participation. Knowing that social desirability did not affect the study results provides additional reliability to these data, which is important when the study population is small.

**Table 1.** Demographic characteristics of the study participants

		Age	Number of years a Registered Nurse	Number of years employed at the study site
N	Valid	40	40	40
	Missing	0	0	0
Mean		44.13	19.88	13.11
Std. Deviation		12.313	13.461	10.034
Minimum		25	1	1
Maximum		68	48	34

**Table 2.** Responses to the social desirability item

Have you ever given up on something because you thought too little of your ability to succeed?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	20	50.0	50.0	50.0
	Yes	20	50.0	50.0	100.0
	Total	40	100.0	100.0	

Motivation for participation in the Journal Club, as displayed in Table 3, was overwhelmingly linked to the potential to earn Career Ladder Points. Thus, participation in the journal club was extrinsic.

Within the 10-item survey there were seven instances of missing datum, with no participant missing more than 5%. In accordance with imputation methods outlined by Cleophas and Cleophas<sup>[11]</sup> population mean scores were calculated and

used as substitution responses. Population mean scores were calculated before and after this activity, to assure the overall study data remained valid.

Overall reliability of the survey, calculated as Cronbach's Alpha, was 0.853. Item reliability ranged from 0.827 to 0.852, indicating a remarkably stable survey. This, together with the social desirability calculation, indicate the study data are reliable, and valid.

**Table 3.** Participation motivation

Was your motivation to participate in the Journal Club linked to earning Career Ladder points?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	2.5	2.5	2.5
	No	8	20.0	20.0	22.5
	Yes	31	77.5	77.5	100.0
	Total	40	100.0	100.0	

Possible participant responses to each survey item were (a) Strongly Agree, (b) Agree, (c) Disagree, (d) Strongly Disagree, and (e) Neutral. Each item achieved the full range of responses. Once all data were entered into SPSS these responses were re-coded, such that neutral corresponded to a numerical score of 0, Strongly Disagree was represented as a 1, Disagree corresponded to a score of 2, Agree was re-coded to the numerical 3, and Strongly Agree was linked to the number 4. Thus, higher numbers reflected a greater agreement with the statement, and reflective of a positive Journal Club experience. Mean scores for each of the 10 items ranged from 1.88 to 3.08. The two lowest scoring items were “Participation in the Journal Club improved my interactions with other interprofessional colleagues” (mean

= 1.88; SD = 1.65) and “Participation in the Journal Club increased my ability to initiate unit or organizational changes in practice” (mean = .109; SD = 1.72). The two highest scoring items included “Participation in the Journal Club increased my desire to provide evidenced based care” (mean = 3.00; SD = 1.10) and “Participation in the Journal Club improved my ability to link research to patient care” (mean = 3.08; SD = .859).

In an effort to describe the perceived benefits associated with participation in the Journal Club, an exploratory factor analysis was performed. These results, displayed in Table 4, identified four factors that achieved an Eigen value greater than 1, yet one factor is capable of explaining 45.69% of the variance. This factor is explained, based on item responses.

**Table 4.** Exploratory factor analysis results

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.569	45.692	45.692	4.569	45.692	45.692
2	1.240	12.403	58.095	1.240	12.403	58.095
3	1.067	10.670	68.765	1.067	10.670	68.765
4	.876	8.763	77.528			
5	.601	6.005	83.533			
6	.486	4.861	88.394			
7	.404	4.044	92.438			
8	.317	3.174	95.612			
9	.252	2.517	98.129			
10	.187	1.871	100.000			

Extraction Method: Principal Component Analysis.

Based on results of the exploratory factor analysis, participation in the Journal Club (1) improved the ability to address clinical issues in a scholarly manner (.777), (2) increased the desire to participate in research (.753), (3) improved the ability to link research to patient care (.704), (4) improved interactions with other interprofessional colleagues (.702), and (5) increased the desire to provide evidenced based care (.700). Using the results of the second component, participation in the Journal Club has a decreased ability to (1) develop an awareness of the steps of the research process (.582), (2) initiate unit or organizational changes in practice (.336), or (3) read / interpret research articles (.317).

Using the mean age (44 years) as a defining variable, study subgroups were developed. This was done based on the premise that age correlated educational preparation, and thus exposure to course content which included evidence-based practice. Group A consisted of participants aged under 44

years, with group B encompassing those aged 44 years and older.

Results from a regression calculation for Group A reflected three components explaining 75.6% of the variance. Item analyses indicated that these participants described Journal Club participation as improving (1) the ability to address clinical issues in a scholarly manner (.787), (2) improved their understanding of evidenced-based practice (.753), and (3) taught them how to stay abreast of clinical research (.724). Journal Club participation had the least effect on the ability to link research to patient care (.486).

Results from a regression calculation for Group B identified three components explaining 75.1% of the variance. Item analyses indicated that these participants described Journal Club participation as improving (1) the desire to participate in research (.790), (2) the ability to initiate unit organizational

changes in practice (.754), (3) how to read and interpret research articles (.750), (4) improved their interactions with other interprofessional colleagues (.706), and (5) improved their ability to link research to patient care (.702). Journal Club participation had the least effect on improving their knowledge of the steps of the research process (.507).

Thus, there are some age-specific differences with respect to benefits of Journal Club participation, as perceived by these participants.

This process was repeated after developing study subgroups based on the motivation to participate in the Journal Club for Career Ladder points. Group C included only those participants that reported participating in the Journal Club was not done for Career Ladder points. Group D encompassed only those individuals who stated that their participation was done for Career Ladder points.

Results from individuals in Group C, who reported their Journal Club participation was not linked to Career ladder points, achieved three components which earned an Eigen value greater than 1. These components explained 84.3% of the variance. Describing these individuals, based on their item responses, allow us to describe their perceived benefit from Journal Club participation to be (1) an increase in their

ability to initiate unit of organizational change in practice (.873), (2) improved their ability to read or interpret research articles (.859), (3) improved their ability to link research to patient care (.786), (4) improved their interactions with other interprofessional colleagues (.755), and (5) improved their ability to address clinical issues in a scholarly manner (.739). An increase in the desire to provide evidence-based care was perceived as having the least benefit (.458).

Results from a regression analyses on Group D determined that there were three components that achieved an Eigen value greater than 1. These components explained 69.8% of the variance. Using the survey items to describe the participant that participated in the Journal Club for Career ladder points reveals that they perceived the benefits to include (1) improving their ability to address clinical issues in a scholarly manner (.826), (2) increased their desire to participate in research (.758), (3) increased their desire to provide evidenced-based care (.734), and improved their ability to link research to patient care (.709). Journal Club participation had the least ability to increase awareness of the steps of the research process (.490).

There are notable differences in perceived benefits of participation in Journal Club activities when the motivation is Career Ladder points. These results are displayed in Table 5.

**Table 5.** Effect of age and motivation on perceived benefits

Survey Item	Study Sample (N = 40)	Under age 44 years (n = 17)	Age 44 years and over (n = 23)	Participation NOT motivated by Career Ladder points (n = 9)	Participation motivated by Career Ladder points (n = 31)
Participation in the Journal Club taught me how to stay abreast of clinical research.		.724			
Participation in the Journal Club increased my desire to participate in research.	.753		.790		.758
Participation in the Journal Club improved my understanding of evidence-based practice.	.700	.753			
Participation in the Journal Club increased my ability to initiate unit or organizational changes in practice.			.754	.873	
Participation in the Journal Club improved my ability to address clinical issue in a scholarly manner.	.777	.787		.739	.826
Participation in the Journal Club enhanced my awareness of the steps of the research process.	.487		.507		.490
Participation in the Journal Club improved my ability to link research to patient care.		.486	.702	.786	.709
Participation in the Journal Club increased my desire to provide evidenced based care				.458	.734
Participation in the Journal Club improved my interactions with other interprofessional colleagues.	.702		.706	.755	
Participation in the Journal Club taught me how to read/interpret research articles.			.750	.859	

\*Item contributing least to the results are in parentheses

## 6. DISCUSSION AND IMPLICATIONS FOR NURSING

Journal clubs, provided in clinical settings, aim to provide a format in which research evidence is identified, critiqued, and implemented into practice when appropriate.<sup>[12]</sup> These data reflect that age and motivation has an effect on journal club participation. When viewed using age as a variant, nurses under the age of 44 years participant in journal club activities for reasons opposite than those over the age of 44 years. This is exemplified by the item describing the potential of the journal club activity to improve the ability to link research to patient care. Participants under the age of 44 years ranked that objective last. Participants over the age of 44 years ranked that objective as one of their top six reasons, and a statistically significant contributor to explaining/describing the perception.

Linking journal club participation to the organization-specific career ladder was a major motivator for this study population. Despite the motivation reason, all participants reported the ability to address clinical issues in a scholarly manner and an improvement in the ability to link research to patient care occurred as a consequence of journal club participation. The desire to provide evidence based care was a discriminating item; responses on this item separated those that participated

for career ladder reasons from those that did not. The ability of journal club activities to enhance one's awareness of the steps of the research process was universally perceived, by these participants, as not occurring.

Data collection at one study site, and the availability of a career ladder which is linked to salary, limits the generalizability of these results. The culture of the organization, the educational preparation of the nursing staff, financial support for participating in and completion of journal club activities may be site specific. Thus, the presence or absence of supportive variables need to be assessed prior to coordinating journal club activities to a career ladder. Certainly additional research should be performed, as clinical settings, content of career ladders, and demographic of the nursing personnel vary. Yet these results demonstrate benefit to journal club participation and motivation that is extrinsic and intrinsic. These factors should be considered when developing and providing journal club activities, whether linked to career ladders or not. Anticipating increased awareness of the steps of the research process, as a journal club outcome, appears to not be an appropriate outcome.

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

## REFERENCES

- [1] Haggman-Laitila A, Mattila L, Melender H. A systematic review of journal clubs for nurses. *Worldviews of Evidence-Based Nursing*. 2016; 13(2): 163-171. PMID:26765809 <https://doi.org/10.1111/wvn.12131>
- [2] O'Nan C. The effect of a journal club on perceived barriers to the utilization of nursing research in a practice setting. *Journal for Nurses in Staff Development*. 2011; 27: 160-164. PMID:21788742 <https://doi.org/10.1097/NND.0b013e31822365f6>
- [3] Rodriguez C, Victor C, Leonardi N, et al. Barriers to participation in a nursing journal club at a community teaching hospital. *Journal of Continuing Education in Nursing*. 2016; 47(12): 536-542. PMID:27893915 <https://doi.org/10.3928/00220124-20161115-05>
- [4] Milbrandt EB, Vincent J. Evidence-based medicine journal club. *Critical Care*. 2014; 8: 401-402. PMID:15566599 <https://doi.org/10.1186/cc3005>
- [5] Dr Semmelweis' Biography. Semmelweis Society International.
- [6] Deenadayalan Y, Grimmer-Sommers K, BPhy MP, et al. How to run an effective journal club: a systematic review. *Journal of Evaluation in Clinical Practice*. 2008; 14: 898-911. PMID:19018924 <https://doi.org/10.1111/j.1365-2753.2008.01050.x>
- [7] Benner P. From novice to expert. *American Journal of Nursing*. 1982; 82(3): 402-407.
- [8] Peacock A, Ward-Smith P, Fullerton T, et al. Participation in an online journal club as a career ladder activity. *Journal of Nursing Education and Practice*. 2017; 7(4): 1-5. <https://doi10.5430/jnep.v7n4.p1>
- [9] Guo Y, Kopec JA, Cibere J, et al. Population Survey Features and Response Rates: A Randomized Experiment. *American Journal of Public Health*. 2016; 8: 422-426. <https://doi.org/10.2105/AJPH.2016.303198>
- [10] Crowne DP, Marlowe D. A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*. 1960; 24: 349-354. <https://doi.org/10.1037/h0047358>
- [11] Cleophas E, Cleophas TJ. Clinical research: a novel approach to regression substitution for handling missing data. *American Journal of Therapeutics*. 2013; 20(5): 514-519. <https://doi.org/10.1097/MJT.0b013e3181ff7a7b>
- [12] Gardner K, Kanaskie ML, Knehans AC, et al. Implementing and sustaining evidence based practice through a nursing journal club. *Applied Nursing Research*. 2016; 31: 139-145. PMID:27397832 <https://doi.org/10.1016/j.apnr.2016.02.001>