Original Article

Nursing Faculty Members' Attitudes and Perceived Barriers toward Conducting Scientific Research: A Descriptive Study from Saudi Arabia

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Abstract

Background: Despite changes in the academic arena in Saudi Arabia including the national accreditation that mandates research productivity by university faculty members, no study has investigated nursing faculty members' attitudes towards research and their perceived barriers.

Aims: To investigate nursing academicians' attitudes towards, barriers of, and intention to conduct research in a Saudi public university, and to compare Saudi and non-Saudi nursing academicians in terms of study variables.

Methods: This study used a quantitative correlational research design utilizing a self-reported questionnaire to collect data from 62 faculty members in a nursing college at a large governmental university in the eastern region of Saudi Arabia.

Results: Participants were found to have moderate negative attitudes 1.77/5 (SD=0.70), higher organizational (M=2.89, SD=1.05) than individual (M=2.32, SD=0.94), and relatively high intention to conduct research (M=3.71, SD=0.88). In general, Non-Saudi participants had more negative attitudes (t= -2.90, df=59.29, p=.005), but barriers were not significantly different. Participants with master degree reported more individual barriers (F=7.06, df=61, p=.002) than participants with bachelor degree, and more organizational barriers (F=10.73, df=61, p=.000) than their counterparts. Attitudes significantly correlated with both individual (r=.399, p=.001) and organizational barriers (r=.436, p=.000). Interestingly, neither participant's attitudes nor their perceived barriers correlated with their intention to conduct research.

Discussion: Establishing structured research program that contains research training, research mentorship, time allocated for research, and allocating research fund is highly recommended in Saudi nursing faculties to overcome barriers of conducting research.

Clinical Relevance: Nurses in Saudi Arabia are in need for nursing research, which should overcome barriers in order to produce more clinical-relevant knowledge concerning healthcare in Saudi Arabia.

Keywords: Nursing Faculty Members; Attitudes; Perceived Barriers; Scientific Research; Saudi Arabia**.**

Introduction

Research is a systematic process to generate knowledge. Worldwide, there is a growing number of articles being published due to the global approach of scientific research (Memarpor, Fard & Ghasemi, 2015). Healthcare research is fundamental in improving health care and has a vital role in the development of health professions. For a long period of time, the majority of the developed countries relied on scientific research (Sabzwari, Kauser & Khuwaja, 2009), which is an exceptionally essential for the development, advancement, and improving health care provided to the communities (Al-Hussami, Al-Momani, Hammad, Maharmeh, & Darawad, 2017; Noorelahi, soubhanneyaz, & Kasim, 2015). For ultimate outcomes, there is an urgent need for healthcare professionals (HCPs) who realize the importance of research for best evidence-based practice (Jahan, Maqbali, Siddiqui, & Al zadjali, 2015). However, the application of research outcomes into clinical practice requires collaboration between researchers, administrators, and HCPs including nurses (Jalali, Bashipour & Baharirad, 2015; Maharmeh, Alasad, Salami, Saleh, & Darawad, 2016).

Like other health disciplines, nursing research is essential for the development of nursing science (Halabi & Hamdan-Mansour, 2010) that has contributed to the improvement of quality of nursing care. Nursing research aims to enhance outcomes of patient care and help nurses to see themselves as an important and valuable part of healthcare team (Jalali et al., 2015). Hence, administrative support and proper nursing education are important to enhance and facilitate nurses' involvement in the process of conducting research and using nursing research outcomes in the clinical practice (Al-hussami, Saleh, Darawad, & Alramli, 2011; Khader, Ibrahem & Mohammed, 2015). University nursing schools have understood such importance of nursing research. Therefore, mandatory nursing research courses are being taught at the undergraduate level in almost every nursing program (Halabi & Hamdan-Mansour, 2010). Further, more importance is being given to the nursing publications made by nurse academicians, which constitutes the fruit of

scientific research. Therefore, academic research productivity is used not only as a guide for departmental and institutional strength, but also as an indicator of the strength and reputation of the discipline. Unfortunately, nursing lags behind other disciplines (Roberts & Turnbull, 2003).

Many factors have affected academic research productivity in the nursing profession. Alghanim and Alhamadi (2011) classified those factors into individual and institutional factors, where individual factors included age, academic ranking and experience, and institutional factor included funds availability, departmental support and institution size. Further, Memarpor et al. (2015) stated that inadequate financial support, limited time and research skills, and lack of mentors' support have been considered as barriers toward conducting research. Many other barriers have been reported in literature (Alsayed, Eldeek, Tayeb, Ayuob & Alharbi, 2012; Alghamdi, Moussa, Alessa, Alothimeen & Alsaud, 2014; Siemems, Punnen, Wong & Kanji 2010).

Along with those factors, the attitudes of the researchers may affect their motivation to conduct research. Several studies in the literature have evaluated the attitudes of medical students, nurses, and academicians toward research. For instance, Noorelahi et al. (2015) reported that 70% of medical students have positive attitudes toward research, but insufficient support may be consider as an obstacle that prevents students from being engaged in conducting research. Nursing students had the same positive attitudes toward research where 75% of them had agreed to use of nursing research in clinical practice, and 94% agreed about the usefulness of nursing research (Halabi & Hamdan-Mansour, 2010). However, they were found to have negative attitudes toward their personal abilities to conduct research. Lack of time and lack of interest were major personal barriers that hinder nurses from conducting nursing research (Jalali et al., 2015; Khader et al., 2015), while insufficient fund, shortage of equipment and lack of time were the main organizational barriers to carry out research from nurses' viewpoint (Jalali et al., 2015).

In the academic arena, there is a broad inconsistency in the research productivity among

faculty members (Dakiket al., 2005). Hence, academicians are required to conduct research for generating knowledge and for promotion purposes. Meanwhile, having many other tasks has hindered their ability to perform their mission. Several factors have been addressed as facilitators to increase research productivity among faculty members. For example, group work, international investigators collaboration and presence of mentoring (Roberts & Turnbull, 2003; Dakiket al., 2005). On the other hand, the low rate of research productivity among academicians was linked to many barriers including their involvement in administrative work that could negatively affect their productivity (Alghanim & Alhamadi, 2011). Traditionally, academic colleges used to be interested in faculty members' performance assessment in terms of teaching performance. However, things have been changed and evaluation of research performance is becoming part of performance assessment for faculty members that should be reflected on their actual research performance (Witte & Rogge, 2010).

In Saudi Arabia, nursing faculty members share the same academic circumstances of nursing colleges worldwide. Recently, many colleges have applied for the national accreditation, which mandates research productivity by faculty members. Despite such change in the academic arena, no study has investigated nursing faculty members' attitudes towards research and their perceived barriers. Most of the found Saudi literature were conducted among bedside nurses, medical staff, or among a mix of faculty members, which does not draw the full picture of the situation among the nursing faculty members in Saudi Arabia. For instance, Alghanim and Alhamadi (2011) explored the major obstacles that impeded research productivity among faculty member in 10 health colleges, and concluded that lack of time, absence of research assistance, unavailability of fund and crowded teaching load were the most outlined obstacles. In addition, they reported that only 38.6% of respondents declared that they have published research work in the past two years. Moreover, no study was found to compare research attitudes and intention to conduct research between Saudi and Non-Saudi nurses. Therefore, this study aimed to investigate nursing academicians' attitudes towards, barriers of, and intention to conduct research in a Saudi public university, and to compare between Saudi and non-Saudi nursing academicians in terms of study variables.

Methods

Design & Setting

This study used a quantitative correlational research design to collect data from nursing faculty members at a large governmental university in the eastern region of Saudi Arabia.

Population & Sampling

The target population for this study included all faculty members employed at nursing colleges at governmental universities in Saudi Arabia. The accessible population included all faculty members employed in the participating nursing college. All faculty members were invited to participate in this study. The inclusion criteria included being a faculty member, with different educational level, in the college of nursing for at least one year, and accept to participate.

Ethical Considerations

Ethical approval was sought from the Research Unit at the participating nursing college before data collection. All ethical principles including voluntary participation, ensuring participants' right to privacy, anonymity and self-determination were guaranteed through measures such as using a cover letter that explained the study purpose and participants' rights, assigning codes rather than participants' names, and allowing participants to fill the questionnaire privately at their offices or homes. Participants were informed that returning the filled out questionnaire was considered as an implied consent.

Data collection

After obtaining the ethical approval, the heads of departments were interviewed to inform them about the study, and to get their permission to interview faculty members. Then, faculty members were individually interviewed and invited after convey study purpose and participants' rights, and verifying inclusion criteria. Those who accepted the invitation were handed the survey packets in closed envelopes. Participants were given the chance to fill out the questionnaires privately at their offices or to take them home. They were told

that a special drop box was assigned in each department.

Instrument

The instrument package of this study had four sections starting with a demographic data sheet that asked participants to report their gender, age, nationality (Saudi, Non-Saudi), marital status, educational level, academic rank, teaching role (Clinical only, mixed clinical and theory), years of experience post graduation of higher degree, years of experience at the current college, and number of publications. The second section asked participants regarding their attitudes toward conducting nursing research, which contained 12 negatively stated items using a 5-point Likert scale ranging from 1 (Not at all) to 5 (To a very great extent).

The mean score, out of 5, was utilized for analysis with higher scores indicating negative attitudes. This scale was adopted from the work of Kajermo et al. (2014) that was applied among nurses in the clinical settings. The original scale had 15 items, but three items were excluded as they asked questions related to the clinical working settings. The authors of this scale established its construct validity using factor analysis with one-factor solution that achieved 81% of the explained variance. Also, they reported that Cronbach's alpha was 0.88 indicating a valid and reliable scale

The third section asked participants to rate their perception regarding 18 barriers (12 individual, 6 organizational) to conducting nursing research. This scale used a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The means for both subscales were utilized with higher scores indicating that the item is highly perceived as a barrier to conducting nursing research. Finally, intention to conduct nursing research was measured using four items (intention to apply for a fund for a research project, intention to conduct a research as a principal investigator, intention to join a research team, and intention to submit at least one research article for publication) developed by the researchers. This scale used a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), and the mean score was utilized with higher scores indicating higher intention to conducting nursing research.

Data Analysis

The Statistical Package for the Social Sciences (SPSS, version 21.0) was utilized for data analysis. Descriptive statistics were used to describe demographic variables and to answer the first research question regarding the level of participants' attitudes, perceived barriers, and intention to conduct research.

To answer the second research question regarding differences in study variables based on participants' demographics, a series of independent sample t test and analysis of variance (ANOVA) were utilized. For the third research question regarding the relationship between study variables including continuous demographic variables, Pearson correlation test was utilized. All tests were two-tailed, with a significance level of .05.

Results

Sample Description

A total of 115 faculty members were invited to participate in this study, out of which 75 returned their questionnaires (response rate= 65%).

However, 13 questionnaires were incomplete leaving a total number of 62 participants. The majority (79%) were females, Non-Saudi (71%), holding master degree (41.9%), working as lecturer (41.9). Their mean age was 38 years (SD=8.95), years of experience post graduation of higher degree was 11.2 years (SD=8.53), years of experience at the current college was 6.23 years (SD=4.25), and mean number of publications was 3.39 article (SD=5.51). Table 1 provides detailed description of sample characteristics.

Description of Study Variables

To evaluate the level of participants' attitudes, perceived barriers (individual and organizational), and intention to conduct research, descriptive statistics were used. As seen in Table 2, results revealed that the means of the study variables were 1.77(SD=0.70), 2.32(SD=1.05), 2.89(SD=0.94), and 3.71(SD=0.88), respectively.

These results indicate that participants had moderate negative attitudes, moderate perceived barriers (organizational higher than individual), and relatively high intention to conduct research.

To identify the most important attitudes and barriers toward conducting research, descriptive statistics and a series of independent sample *t* tests were utilized.

Table 1: Description of Sample Characteristics (N=62)

Variable	n(%)	M(SD)	Range
Gender			
Male	13(21)		
Female	49(79)		
Nationality			
Saudi	18(29)		
Non-Saudi	44(71)		
Marital status			
Single	12(19.4)		
Married	50(80.6)		
Educational Level			
BSN	13(21)		
MSN	26(41.9)		
PhD	23(37.1)		
Academic Ranking			
Clinical Instructor	13(21)		
Lecturer	26(41.9)		
Assistant Professor	17(27.4)		
Associate Professor	4(6.5)		
Professor	2(3.2)		
Teaching Role			
Clinical Only	18(29)		
Mixed Clinical & Theory	44(71)		
Age		38(8.95)	24-56
Years of Experience Post graduation		11.2(8.53)	2-30
Years of Experience at Current College		6.23(4.25)	1-20
Total No. of Publications		3.39(5.51)	0-25

Table 2: Comparing Attitudes Items between Saudi & Non-Saudi Participants

Attitudes Items	Sample Mean(SD)	Saudis Mean(SD)	Non-Saudis Mean(SD)
1. To participate in development in nursing does not promote skills in nursing profession	1.65(1.18)	1.39	1.75
2. In the nursing area too much is written and there is too much talk about research and development.	2.68(1.35)	2.33	2.82
3. Nurses with different degrees (BSN, MSN, PhD) are not in need of knowledge based on the research as much as medical doctors.	1.47(1.01)	1.22	1.57
4. The nursing profession consists of practical work and does not have to include research.	1.45(.89)	1.11	1.59*
5. There is no point in devoting your time to development in nursing.	1.60(1.06)	1.17	1.77*
6. We do not need researchers in nursing to develop the care; nurses will manage that by themselves.	1.35(.87)	1.00	1.50*
7. The PhD, DNP, ND, MSN training course is based too heavily on research.	1.76(1.07)	1.83	1.73
8. Research complicates my daily nursing work.	1.60(1.18)	1.17	1.77*
9. Research does not give the PhD/MSN holder a higher status.	1.52(1.16)	1.00	1.73*
10. Further education in research is not important for my future.	1.58(1.14)	1.17	1.75*
11. To participate in research does not contribute to increased skills in nursing profession.	1.60(1.11)	1.17	1.77*
12. It is not realistic to apply research to the practical work.	1.77(1.23)	1.17	2.02*

* Significant at $p < 0.01$

Table 3: Description of Participants' Responses to Perceived Barriers to Conduct Research

Barrier	Mean(SD)
Individual Barriers	
1. Unawareness of the methods of using the electronic data base.	2.55(1.34)
2. Lack of computer and searching skills.	2.16(1.44)
3. Lack of confidence to perform the research activities.	2.15(1.28)
4. Unwillingness to change or try new ideas.	2.02(1.33)
5. Lack of knowledge about process of research development.	2.24(1.30)
6. Difficulty in understanding research reports.	2.26(1.28)
7. Difficulty in evaluating the quality of research reports.	2.45(1.33)
8. Difficulty in identifying the implications of research findings for one own practice.	2.31(1.26)
9. Have no sufficient time to find research reports.	3.06(1.27)
10. Have no interest in reading research reports.	2.11(1.31)
11. Difficulty in understanding the statistical analysis.	2.61(1.29)
12. See little benefits for self from research.	1.95(1.18)
Organizational Barriers	
13. Other organizational goals with a higher priority are considered rather than research.	2.89(1.36)
14. Limited organizational budget for research training.	2.90(1.21)
15. Insufficient resources for conducting research e.g. computers, and recent library references.	2.42(1.41)
16. Insufficient time on work to conduct research.	3.87(1.19)
17. Institution administration is not supportive to conduct research.	2.66(1.25)
18. Relevant literatures are not compiled in one place.	2.63(1.23)

Table 4: Comparison of Study Variables based on Categorical Demographics (N=62)

Variable	Attitudes M(SD)	Individual Barriers M(SD)	Organizational Barriers M(SD)	Intention to Conduct Research M(SD)
Total Sample	1.77(0.70)	2.32(1.05)	2.89(0.94)	3.71(0.88)
Gender				
Male	1.87(0.54)	2.32(0.99)	2.9(0.79)	3.87(1.04)
Female	1.74(0.74)	2.32(1.07)	2.89(0.98)	3.66(0.85)
Nationality				
Saudi	1.49(0.28)**	2.36(0.79)	3.02(0.93)	3.57(0.78)
Non-Saudi	1.88(0.79)	2.30(1.14)	2.84(0.95)	3.77(0.94)
Education				
BSN	1.67(0.29)	2.40(0.74)	2.67(0.77)	3.35(0.94)
MSN	2.00(0.95)	2.78(1.13)**	3.44(0.87)**	3.78(0.88)
PhD	1.56(0.46)	1.76(0.84)	2.40(0.78)	3.84(0.85)
Teaching Role				
Clinical Only	1.90(0.79)	2.69(0.92)*	3.12(1.03)	3.50(0.93)
Both	1.71(0.67)	2.18(1.07)	2.77(0.89)	3.79(0.88)

**Significant at $P<0.05$ ** Significant at $p<0.01$

Table 5: Correlation among Study Variables

Variables	Attitudes	Individual Barriers	Organizational Barriers	Intention to Conduct Research
Attitudes	1			
Individual Barriers	.433**	1		
Organizational Barriers	.478**	.664*	1	
Intention to Conduct Research	.094	.023	-.011	1
Age	.218	-.172	-.074	-.046
Years of Experience Post graduation	.115	-.178	-.185	-.080
Years of Experience at Current College	-.059	-.027	.015	.101
Total No. of Publications	-.164	-.404**	-.329*	.011

*Significant at 0.05 level (2-tailed) **Significant at 0.01 level (2-tailed)

As seen in Table 2, the highest item of negative attitude was *"In the nursing area too much is written and there is too much talk about research and development"* (M=2.68, SD=1.35), while the lowest was "*We do not need researchers in nursing to develop the care; nurses will manage that by themselves*" (M=1.35, SD=0.87). It was noteworthy that in most of the items (8 out of 12), there was statistically significant difference between Saudi vs Non-Saudi participants. In general, Non-Saudi participants had more negative attitudes.

Regarding barriers to conducting research, the individual barrier that received the highest mean was "*Have no sufficient time to find research reports*" (M=3.06, SD=1.27), while the lowest was "*See little benefits for self from research*" (M=1.95, SD=1.18). Concerning organizational barriers, the barrier with the highest mean was "*Insufficient time on work to conduct research*" (M=3.87, SD=1.19), while the barrier with the lowest mean was "*Insufficient resources for conducting research*" (M=2.42, SD=1.41). It was noted that none of the barriers had significant difference between Saudi and Non-Saudi participants. However, results of paired t test revealed that organizational barriers (M=2.89, SD=1.05) were significantly (t=-5.496, *df*=61, p=.000) higher than individual barriers (M=2.32, SD=0.94).

To assess differences in study variables based on participants' demographics, a series of independent sample *t* test and ANOVA were utilized. Regarding attitudes, no significant differences were found except that Non-Saudi participants had more negative attitudes than Saudis (t= -2.90, df=59.29, p=.005). Similarly, barriers were not seen to have differences based on demographic characteristics except for educational level, where participants with master degree reported more individual barriers (F=7.06, df=61, p=.002) than participants with bachelor degree, and more organizational barriers (F=10.73, df=61, p=.000) than their counterparts, and teaching role where participants with clinical role only reported more individual barriers (t=1.88, df=37.08, p=.045).

Correlation among Study Variables

To assess the relationship among study variable, Pearson correlation test was utilized. Results (Table 3) revealed that attitudes significantly correlated with both individual (r=.399, p=.001) and organizational barriers (r=.436, p=.000). Interestingly, neither participant's attitudes nor their perceived barriers correlated with their intention to conduct research. Finally, the only demographic variable that significantly correlated with study variables was the number of publications, which negatively correlated with both individual (r= -.404, p=.002) and organizational barriers (r= -.329, p=.011).

Discussion

This study investigated nursing faculty members' attitudes towards, barriers of, and intention to conduct research in a Saudi public university, and compared between Saudi and non-Saudi nursing faculty members in terms of the study variables. Such study is needed in Saudi Arabia that is witnessing a rapid advancement in nursing profession and nursing education, especially with the governmental mandatory application for the national accreditation.

The results revealed that faculty members had moderately negative attitudes to conduct research, and reported moderately perceived individual and organizational barriers. According to Siemems et al. (2010), such barriers and negative attitudes are expected to lower research productivity in terms of intention to get engaged in research activities. However, participants in this study had high intention to conduct research in the future. Such contradiction might be explained by their positions that mandate them to conduct research as a requirement for the national accreditation that has research productivity as one of its items.

This phenomenon has not been previously addressed in the context of nursing faculty members. On the other hand, the attitudes toward research have been investigated in other disciplines such as medical faculty members, healthcare professionals (HCPs), and undergraduate nursing students.

For instance, Sabzwari et al. (20009) assessed Pakistani junior faculty members of four medical universities, and reported that the participants who were not involved in research projects had more negative attitudes than those who were involved in research. Moreover, more than 83% of study participant admitted that research was difficult to be carried out. On the other hand, the majority of the study subjects agreed that research is helpful, promotes critical thinking and improves patient care. So, engagement of faculty members in research projects and workshops helps to enhance the positivity of attitudes toward scientific research. Similarly, Rosemann and Szecsenyi (2004) assessed the attitudes of German general practitioners toward research, who expressed that the attitude that is forcing them to participate in research was "*the readiness for participation in scientific research originates basically from the motivation to improve the reputation of the discipline*".

Nursing students' attitudes were also evaluated. Halabi (2016) assessed the attitudes of Saudi students toward research, and found that that the students showed positive attitudes toward research. Such students' view may continue until nurses achieved higher degrees. So, it is important to raise the awareness of students toward research in their incoming roles including nurses in the clinical practice and as future faculty members. Anjum et al. (2016) emphasized that understanding student' perceptions and opinions can lead to development of research practices among future researchers. Consequently, the sense of motivation toward research and the positivity of attitudes are crucial elements to motivate the future researchers to carry out research.

The negativity of attitudes was obviously presented in item stated "*In the nursing area too much is written and there is too much talk about research and development*" which achieved the highest value of negative attitudes. On the other hand, the lowest item of negative attitudes was item number six (we *do not need researchers in nursing*). It can be concluded that it is not the importance of research that constituted the negative attitudes. Rather, it is the process of conducting research, which can be overcome by research training and engagement in research teams.

About two thirds of the participants were non-Saudis who showed more negative attitudes than Saudis, and this difference was statistically significant between them. A study in Oman, a country similar to Saudi Arabia, found similar finding in that research perception and self-experience of research differed between Omani and Non-Omani HCPs (Jahan et al., 2015). Such difference might be explained by the less motivation they have as expatriates concentrating on financial benefits rather than other responsibilities. Also, many of them are hired in academic institutions in their home countries, and came to Saudi with unpaid leave for a period of time. This should alarm deanship of nursing schools in Saudi Arabia to the importance of engaging faculty members in research projects that is structurally developed within their institution, and supported by funds and resources to facilitate their research work. Also, it is important to include research productivity in the annual evaluation for the purpose of contract renewal to encourage faculty members (Saudis and non-Saudis) engagement in research projects.

Regarding individual barriers, *insufficient time of faculty members* achieved the highest score among participants. Limited time due to busy teaching workload may hinder the faculty members to conduct research, which was consistent with Noorelahi et al. (2015). Alternatively, item twelve (*see little benefits for self from research*) had the lowest score of individual barriers. Knowing that organizational barriers were significantly higher than individual barriers, this might not be surprising due to that the incentives are not provided to encourage faculty members to spend some time in research productivity. This confirms what have been previously mentioned about the research atmosphere in Saudi nursing schools, especially with having a majority of non-Saudi faculty members.

Regarding organizational barriers, lack of time was also reported to be the highest barrier, which has been repeatedly reported in literature (Alghamdi et al., 2014; Alghanim & Alhamadi, 2011; Amin et al., 2012). The lack of time can be referred due to the burden of the educational workload for Saudi and non-Saudi faculty members, lack of encouragement and high level of managerial roles demand (Alzahrani, 2011). However, there was no

statistically significant difference between Saudi and Non-Saudi participants concerning both individual and organizational barriers, which may reflect the pressure made by the application of college terms of rules and laws on all faculty members regardless of their nationality.

When major study variables have been connected to participants' demographics, overall, Non-Saudi participants had more negative attitudes than Saudis, which mandates further studies to explore this phenomenon. Regarding barriers, the participants holding master degree reported not only more individual barriers, but also more organizational barriers. Moreover, participants with clinical role only reported more individual barriers. The reasons behind such result can be explained by the responsibility of the master degree holders to be more involved in more clinical teaching, which limits their time and consequently leads to lower research productivity and higher perceived individual barriers (Alzahrani, 2011; Noorelahi et al, 2015; Siemems et al, 2010). In addition, the lack of research mentors for the master degree holders due to busy schedules of higher academic ranking (assistant, associate, and full professors) might prevent them from being engaged in conducting research (Noorelahi et al, 2015). This was confirmed by Roberts and Turnbull (2003) who concluded that faculty members with higher qualifications clearly had more scholarly productivity and output. Therefore, it is recommended to encourage faculty members holding master degree for better engagement in research projects to enhance the research productivity. Such encouragement can be financial or time out on their workload schedule, and through making a mentorship program within the college that supports them in their initial steps in research productivity.

The number of publications was the only demographic variable that negatively correlated with both individual and organizational barriers, which was consistent with literature (Alghanim & Alhamadi, 2011; Roberts & Turnbull, 2003). Alzahrani, (2011) mentioned that lack of financial support, teaching overload and lack of information recourses were the reported barriers that led to reducing the number of publications. Overcoming barriers (individual and organizational) will aid in increasing the number of publications. This issue

can be solved by encouraging faculty members to publish and reward them accordingly, supply the researchers with free access to all information recourses and finally get rid of and minimize unnecessary meetings to save time of faculty members.

The results of this study should be taken considering its limitations. Firstly, the use of self-report tools for data collection, especially for research publications and intention to conduct research, may not reflect the actual phenomenon. Therefore, future studies may consider revising participants files and curriculum vitas to obtain more objective data in this regard. Secondly, including a small sample size of faculty members from only one academic constitution may have affected the generalizability of the study results. Replicating this study among a larger sample size from a variety of nursing schools in Saudi Arabia would help in drawing a better picture for this important phenomenon in nursing.

Conclusion

Nursing Faculty members were found to have negative attitudes and moderate perceived barriers toward conducting research. The majority of the sample were non-Saudis and holding master degree, which provided an insight for the negative attitudes and low research productivity. Establishing structured research program that contains research training, research mentorship, time allocated for research, and allocating research fund is highly recommended in Saudi nursing faculties to overcome barriers of conducting research. Further, this study was the first to investigate this phenomenon in nursing faculty, for which its replication considering larger sample size and various nursing faculties is highly recommended.

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