

Perceived Research Publication Pressure on Academics: An Exploratory Study at The Open University of Sri Lanka

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Abstract

Research is vital for development of any discipline. Academics in universities are also expected to engage in research in their discipline or other areas of interest and publish them in reputed journals. In most of the universities worldwide, the quantity of research publications has become the main criterion for recruitment, promotion, grants, and other incentives for academics. Many academics in Sri Lankan universities too experience pressure to publish and the pressure comes from different sources. Hence, the need to conduct research on publication experience of academics of The Open University of Sri Lanka (OUSL) was felt necessary. The objectives of this research were to identify the level of publication pressure experienced by a sample of academics at OUSL and to find out the factors that influence their research performance. This study used a survey research design. The revised

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Publication Pressure Questionnaire (PPQr) by Haven, Bouter, Smulders & Tijdink (2019) with an additional open-ended question was used as the data collection instrument. The findings showed that the academics in the sample experience research publication pressure to a considerable extent. The findings of this exploratory study will be used to adapt the questionnaire to suit the Sri Lankan University context, especially the Open and Distance teaching context.

Keywords: *Publication pressure, Research experience, Academics' stress, Open and Distance Teaching, Research publication*

Introduction

There is no argument that research is important for development of any discipline. Research output plays a key role in quality assurance criteria of universities and in the promotional and recruitment criteria of university academics. Academics in universities and higher education institutes worldwide engage in research in their discipline or other areas of interest and attempt to publish them in reputed journals. However, getting published in international peer-reviewed journals is not an easy process and nearly forty years ago, Bradley (1981) reported that 76% percent of university academics encountered pressure to conform to the expectations of the reviewers and the rejection rate was very high. It is also common practice that the publication process takes at least two years. However, in most of the universities and other HEIs in the world, the quantity of research publications has become the main criterion for promotion, grants, and other incentives for academics. According to Haven, Bouter, Smulders, & Tijdink (2019) this exercises pressure on academics to publish, and they define this 'perceived publication pressure' as 'the subjective pressure resulting from the feeling that one has to publish' (p.1). Some researchers argue that high publication pressure may cause 'detrimental effects ... on the scientific enterprise and on individual researchers' and this may affect the quality of research leading to 'scientific misconduct, fraud, and plagiarism' (Haven, de Goede, Tijdink, & Oort, 2019). Research publications play a major role in

the criteria used for recruitment, promotion, and incentivization of academics in the Sri Lankan university system. Anecdotal evidence from fellow academics also shows that they too experience pressure to publish and the pressure comes from different sources. Hence, the need to conduct research on publication experience of academics of OUSL was felt necessary. The objectives of this research were to identify the level of publication pressure experienced by a sample of academics at OUSL and to find out the factors that influence their research performance. The findings will also be used to adapt the questionnaire to suit the Sri Lankan University context, especially the Open and Distance teaching context.

Theoretical Framework

The present study was guided by the Theory of Reasoned Action and the Theory of Planned Behavior. According to the Theory of Reasoned Action (TRA) by Ajzen & Fishbein (1980), individuals' intention to perform a behavior is guided by their own attitudes about that behavior, and subjective norms i.e., perceived social pressures from people whom they want to please. The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein 1980) and this theory is useful in understanding how changes happen in people's behavior. Both TRA and TPB are based on the hypothesis that people evaluate information available to them and make logical, reasoned decisions on their behavior. The performance of a behavior is influenced by the value an individual give to it, the ease with which it could be performed, the views of significant others and the individual's perception that the behavior is within that individual's control.

According to the Theory of Planned Behavior, people's intentions to engage in something are determined by three variables: personal attitudes towards a particular behavior, subjective norms (one's perceptions of other's views about that behavior), and perceived behavioral control (the extent to which a person thinks she or he can control a particular behavior). Ajzen (2005) stresses that having the intention of the action per se will have no positive effect unless

the person has control of all the other factors that contribute to the final behavior. Figure 1 shows the relationship among the factors explained by the Theory of Planned Behavior.

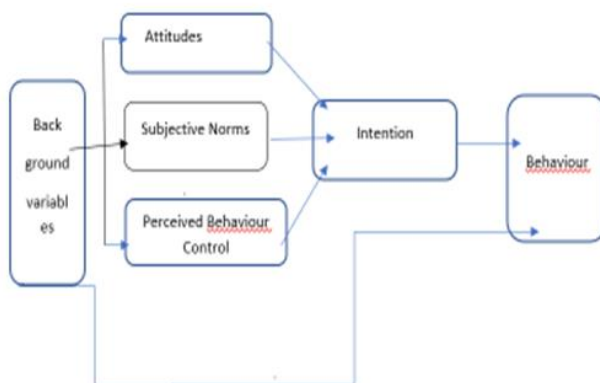


Figure 1. The Theory of Planned Behavior adapted from Ajzen (2005).

Review of literature

Previous studies have looked at publication pressure on academics from several perspectives. Some researchers have studied the role of language in publication. While some claim that proficiency in English affects publishing (Cho, 2009; Hanauer, & Englander, 2011), others argue that there are non-linguistic factors such as experience, seniority, one's professional network, availability of funding, and access to resources that hinder academic publishing (Canagarajah, 2002; Hyland, 2016; Soler, 2019). Some research focuses on publication pressure from a socio-political perspective, and they claim that the importance given to bibliometric research parameters when granting scholarships, academic appointments, and research funding result in pressure (Bedeian, Van Fleet, & Hyman, 2009; Bird, 2006). Rowlands & Wright (2019) studied academics' and administrators' awareness of bibliometric indicators used for research assessment in a Danish university.

Using Bourdieu's theory, they argue that most of the senior researchers who are in high positions resist the hunting for points, and they pay less attention to bibliometric indicators. In contrast, Rowlands & Wright (2019) found that early career researchers in their sample showed interest in knowing more about bibliometric indicators which have considerable effects on their publishing practices. Tijdink, Verbeke, & Smulders (2014) found that publication pressure was significantly linked to scientific misconduct, and this was common among Flemish young biomedical scientists in their study. Haven, de Goede, Tijdink, & Oort (2019) also stressed that publication pressure leads to fraud and misconduct.

Taking a psychological perspective, Haven, Bouter, Smulders, & Tijdink (2019) conducted a study to assess the level of publication pressure among academics of different ranks and disciplines using a Publication Pressure Questionnaire (PPQr). This PPQr is a revised version of the Publication Pressure Questionnaire developed by Tijdink, Smulders, Vergouwen, de Vet, & Knol (2014). The questionnaire consists of three subscales, namely, Stress subscale, Attitude subscale, and Resources subscale. The findings showed that researchers experience publication pressure irrespective of their discipline. Most of the academics at postdoc or assistant professor level experienced publication stress and they had a negative attitude towards the publication climate while the more established academics perceived less publication pressure. Out of the three subscales in the PPQr questionnaire, attitude subscale had the highest score for irrespective of the academic rank or discipline, stress subscale came next, while the resources subscale had the lowest score. The literature review shows that there is a scarcity of studies on publication pressure of academics. There are no studies conducted on this topic in Sri Lanka to the researcher's knowledge.

Objectives of the Study

The main objectives of the study were to identify the level of publication pressure experienced by a sample of academics at

OUSL and to find out the barriers that affect their research performance as perceived by these academics.

Research Questions

1. What is the level of publication pressure experienced by a sample of academics at OUSL?
2. What are the perceived barriers that affect their research performance?

Methodology

The study adopted a survey research design. This is an exploratory study which was conducted to collect data on research publication experience of academics at OUSL. The revised Publication Pressure Questionnaire (PPQr) by Haven, Bouter, Smulders, & Tjink (2019) was used as the data collection instrument. The PPQr is a validated questionnaire which measures stress, attitude, and resources as three dimensions of publication pressure. The questionnaire was slightly amended by the researcher to improve clarity and to collect more data. For example, an open-ended question was added to get additional information. Permission to revise and use the PPQr questionnaire was requested from the researchers mentioned above and written permission was obtained. The questionnaire consisted of 19 items and these were categorized under the above-mentioned subscales. Items 1-6 were related to Publication Stress, 7-12 were related to Attitude towards publication and the items 13-19 were on Resources related to publishing. The responses were on a 5-point Likert Scale from Totally agree (5) to Totally disagree (1). See Appendix for the Adapted Publication Pressure Questionnaire used in the present study. The publication stress subscale had 6 items (Cronbach's $\alpha = .804$) which attempt to discover the stress level experienced by academics. The publication attitude subscale consisted of 6 items that reflect academics' attitudes towards publication (Cronbach's $\alpha = .777$) and the publication resources subscale also had 6 items (Cronbach's $\alpha = .754$) that are related to factors that can help in preventing the publication pressure.

The survey questionnaire was converted to a Google form and was sent to 175 academics representing all six faculties at OUSL. It can be considered a random sample as all the email addresses of academics in a mail list generated for circulating a common mail by the university were used for administering the questionnaire. Three reminders were sent 14 days apart. There were 41 complete responses, and this paper discusses the findings based on the closed and open-ended questions in the questionnaire. The details of the respondents are given in Table 1.

Table 1. Respondents according to their Gender, Age, Qualifications, Experience, and Academic Position

Gender	N	%
Male	15	36.6%
Female	26	63.4%
Age	N	%
24-39	09	22%
40-55	21	51.2%
56-65	11	26.8%
Qualifications	N	%
PhD	27	65.9%
MPhil	04	9.8%
MA/MSc	10	24.4%
Experience at OUSL	N	%
Less than 5 years	6	14.6%
6-12 years	13	31.7%
13-19 years	08	19.5%
20 years and above	15	36.6%
Academic position	N	%
Senior Professor	04	10%
Professor	03	7%
Senior Lecturer	30	73%
Lecturer	04	10%

Results

Out of the 175 academics in the sample, 41 responded to the

questionnaire and the response rate was 24%. The informants' background information is given in Table 1. The low response rate could be attributed to online administration of the questionnaire, lack of time, or absence of a positive research culture in the university. The questionnaire consisted of 18 statements. Eight statements which had negative connotations were reverse coded before analysis.

The study revealed that OUSL academics in the sample face publication pressure in all three areas, namely, Stress, Attitudes, and Resources. Out of these 3 subscales in the questionnaire, Stress subscale scored the highest (M = 2.62, SD= 0.87) while Attitude subscale scored second (M = 2.57, SD=0.77) and the Resources subscale scored the lowest (M = 2.05, SD= 0.66).

Table 2. Publication Stress Subscale

Statement	Mean	SD
1. I experience stress at the thought of my colleagues' assessment of my publications output.	2.17	0.76
2. I feel forced to spend time on my publications outside office hours.	3.09	0.82
3. I cannot find sufficient time to work on my publications.	3.07	0.92
4. I have no peace of mind when working on my publications.	2.41	0.76
5. I can combine working on my publications with my other tasks.	2.39	0.76
6. At home, I do not feel stressed about my publications.	2.39	0.72

As shown in Table 2, these academics experience stress mainly due to lack of sufficient time to engage in their research publication. The answers to the open-ended questions also revealed that most of the academics suffer from publication stress. The main reason given was time constraints as they attempt to balance a heavy load of academic and administrative duties.

At OUSL, the large amount of administrative work academics

must do compromises the commitment to teaching and even more, to conducting research. (R11)

Due to shortage of staff and the high teaching and academic administration work, it is difficult to find time slots to do a study as well as write a paper. (R20)

Table 3. Publication Attitude Subscale

Statement	Mean	SD
1. The current publication climate puts pressure on relationships with fellow-researchers.	2.39	0.76
2. I suspect that publication pressure leads some colleagues (whether intentionally or not) to cut corners. (find easy/fast ways)	2.95	0.66
3. In my opinion, the pressure to publish scientific articles has become too high.	2.95	0.79
4. My colleagues judge me mainly on the basis of my publications.	2.26	0.54
5. Colleagues maintain their administrative and teaching skills well, despite publication pressure.	2.41	0.79
6. Publication pressure harms other academic work.	2.46	0.73

The findings showed that the attitudes of academics towards publication climate are not very positive. As shown in Table 2, the academics experience pressure when they are unable to publish research articles in indexed journals as required by the circulars for funding, promotions, and incentives. However, the academics themselves believe that there are both positive and negative effects of this publication pressure.

An academic should not be judged primarily on publications. Pressure to publish affects other academic work of the academic. However, the pressure to publish also has positive

effects. (R 5)

There were senior academics who were of the opinion that the publication demands attached to incentives lead to low quality research and violation of research publication ethics.

Application for annual research allowance and Annual SER has made academics to publish a paper somehow. In one hand this has motivated academics to engage in research, however, it has increased publishing of low quality research too (majority). (R 23)

Pressure to publish has sometimes compromised the important aspect of publishing ethics. Recognition for research output by Awards (which is a good move) has driven some researchers to submit any number of papers to the same conference in a given year. (R 21)

Researchers tend to deviate from ethical practices when publishing research articles e.g., students' projects - supervisors publish the work as first authors, researchers tend to carry out very superficial research and get those published by paying money. (R 30)

A senior academic claimed that positive attitudes among academics towards collaborative research may increase the quality and quantity of research publications. He emphasized the importance of knowledge sharing and working towards common goals for enhancing research publication opportunities.

Table 4. Publication Resources Subscale

Statement	Mean	SD
1. When working on a publication, I feel supported by my co-authors.	2.17	0.48
2. When I encounter difficulties when working on a publication, I can discuss these with my colleagues.	2.09	0.53
3. I have freedom to decide about the topics of my publications.	1.58	0.53
4. When working on a publication, many decisions about the content of the paper are outside my control.	2.09	0.75
5. I cannot cope with all aspects of publishing my papers.	2.48	0.73
6. I feel confident in the interaction with co-authors, reviewers and editors.	1.85	0.52

Table 4 depicts the level of pressure experienced by these academics with regards to publication resources. These academics experience pressure as they are unable to cope with the demands of the publication process. The open-ended questions provided qualitative data which revealed the nuances in the research publishing experience of academics. Some informants attempted to explain the reasons behind their choice of a response to a particular statement. One informant expressed that her responses to some statements in the questionnaire could have been different if she were in another work environment. This was mainly about statement 2 in the Publication Resources Subscale. According to this informant, she could have discussed her difficulties in research with her colleagues if she were in a different institution. Regarding statement 3, an informant stated that she chooses the content to suit the requirements of a particular publisher.

In addition to the areas that cause publication pressure given in the questionnaire, some informants mentioned other aspects that are problematic to them. Such issues included inadequate proficiency in academic writing skills and lack of awareness of the research publication process.

Although I am confident in my writing skill, I like to develop it more. Also it would be better if we get good guidance regarding the choice of suitable and accredited journal for publications.
(R8)

The Resources Subscale did not include statements related to physical resources. However, the responses to open-ended question revealed that these informants experience pressure from lack of adequate resources such as laboratory equipment, printing facilities, access to research articles, and funding for research publication.

Table 5. Descriptive Statistics of Participants' Publication Pressure Stratified by Gender and Academic Rank

	N	Publication Stress M(SD)	Publication Attitude M(SD)	Publication Resources M(SD)	Overall Publication Pressure M (SD)
Male	15	2.57(0.88)	2.54 (0.77)	2.02 (0.67)	2.38 (0.82)
Female	26	2.56 (0.87)	2.57 (0.76)	2.04 (0.66)	2.40 (0.81)
Senior Professor/ Professor	07	2.57(0.89)	2.52 (0.77)	2.01 (0.68)	2.37 (0.83)
Senior Lecturer I/II	30	2.59 (0.87)	2.57 (0.76)	2.05 (0.66)	2.40 (0.81)
Lecturer/ Lecturer (Prob.)	04	2.61 (0.87)	2.57 (0.72)	2.12 (0.76)	2.43 (0.82)
Total	41	2.62 (0.87)	2.57 (0.77)	2.05 (0.66)	2.40 (0.81)

As shown in Table 5, the data were analyzed according to gender and academic rank. The results showed that female academics in the sample experience slightly higher overall publication pressure than the male counterparts. The highest mean was found to be in

Publication Attitude while Publication Stress came second and the Resources the last. The male academics had the highest mean for Publication Stress with Publication Attitude coming next and the Resources with the lowest mean. When analyzed for academic rank, the results showed that the overall publication pressure was the highest with Lecturer/Lecturer (Probationary) category and it was the lowest with Senior Professor/Professor category. All three academic ranks experienced the highest pressure in the Publication Stress Subscale while the next highest was in Publication Attitude. Publication Resources caused more pressure on Lecturer/ Lecturer probationary ranks than that on higher ranks.

Discussion

The study used a validated questionnaire on publication pressure (PPQR) designed by Haven, Bouter, Smulders, & Tjldink (2019) slightly adapted to suit the present context. It also included an open-ended question which collected qualitative data. The findings showed that academics at OUSL experience publication pressure in all three areas. The highest pressure was seen in the Publication Stress subscale (M=2.62). The Publication Attitude was the next highest cause of publication pressure on academics (M= 2.57) while the Resources subscale had the lowest with a Mean of 2.05. These results differ from what Haven, Bouter, Smulders, & Tjldink (2019) found in their study in Amsterdam. In their study, the Publication Attitude Subscale had the highest mean (M= 3.59) with Publication Stress (M= 3.22) coming next, and the Resources subscale (M= 2.21) was the last. They found that there was a negative attitude towards the publication climate in the country across academic ranks and disciplinary fields. In the present study, OUSL academics were found to be experiencing Publication Stress mostly due to time constraints. Inability to find adequate time to work on their publications and the pressure to work on publications outside working hours were the factors that caused higher stress than the others in the Stress subscale for OUSL academics. In the Attitudes subscale, temptation to engage in low quality research or research misconduct and the issues related to publishing in scientific journals create negative attitudes towards research. In the study by

Haven, de Goede, Tijdink, & Oort (2019), however, high negative attitude ($M= 3.93$) was created when the academics' performance was merely judged based on their research publications.

The study revealed that there are gender differences in perceived publication pressure of the informants with females experiencing more pressure than the males. Those who were in higher academic ranks experienced less pressure than those in lower ranks. Haven, Bouter, Smulders, & Tijdink (2019) also found similar results about gender but their results in the academic rank differed from the findings of the present study. In their study the postdocs and assistant professors (second rank) perceived the highest publication stress and negative attitudes while OUSL academics in the third rank experienced the highest stress and negative attitudes. The Resources caused higher pressure to academics in lower ranks than to those in higher ranks in both studies.

The open-ended question was useful in identifying additional information on OUSL academics' views about publication demands and in answering the second research question: What are the perceived barriers that affect their research performance? Many academics feel that they are burdened with administrative duties which affect their teaching and research. While some academics think the pressure to publish has positive effects, there are others who believe that pressure to publish has 'compromised the important aspect of publishing ethics'. As pointed out by some of the senior academics, incentives tied to research output such as research allowance and research awards may lead to low-quality and unreliable research. Ajzen & Fishbein (1980), individuals' intention to perform a behavior is guided by their own attitudes about that behavior, and subjective norms i.e., perceived social pressures from people whom they want to please.

The academics expressed the view that an academic's contribution to the university or to society should not be judged merely on her/his research output as there are academics whose main concern is to provide comprehensive support to students through teaching, assessing, counseling, and designing course material. While acknowledging the importance in research in academia, they

believe that equal weighting should be given to other services offered by academics as well in criteria for evaluation of academics. They suggest that positive attitudes towards collaborative research, sharing knowledge about research, working towards common goals would increase both quality and quantity of research publications.

The qualitative data also indicated the importance of creating a healthy climate for research by providing adequate physical resources and funding for academics to engage in research without pressure.

Conclusions

The findings revealed that the academics at OUSL experience pressure due to several factors related to publication stress, publication attitude, and publication resources. These findings cannot be generalized since the responses are from only 41 academics of OUSL. However, the study revealed valuable information regarding publishing experience of the sample. The responses to the open-ended question can be used to revise the PPQR questionnaire. The revised questionnaire could be administered to a larger sample followed by interviews to gain a better understanding of the publication experience of the academics in a university which practices Open and Distance learning mode and which gives priority to teaching (only??). This exploratory study revealed that the academics in the sample experience publication pressure and it has both positive and negative effects on academics. The study showed the need to strengthen the resources and facilities necessary for research and the need for creating a research-friendly culture which will enhance the intrinsic motivation of the academics. Their positive attitudes towards research need to be encouraged (Ajzen & Fishbein, 1980). Creating an environment conducive to research, raising awareness of publishing opportunities, encouraging collaborative research, and recognizing contributions to university other than research for incentives, may motivate academics to engage in good quality research.

Limitations and suggestions for future research

The present study also has some limitations that need to be addressed in future studies. The study had a fairly low completion rate (24%) which may be an indication of lack of interest in research, absence of a research culture and time constraints due to academic and administrative workload. The study investigated the psychological aspects of publication pressure and the future studies may study the political and social aspects that lead to publication pressure among academics. Interviews with at least a sub-sample of academics would reveal the nuances in publication pressure experienced by academics. Future studies may also study the publication pressure experienced by academics in other conventional universities as well.

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Appendix

Publication Pressure Questionnaire (PPQr) (Adapted)

(‘Totally agree’ = 5, ‘Totally disagree’ = 1)

Publication Stress Subscale

1. I experience stress at the thought of my colleagues' assessment of my publications output.
2. I feel forced to spend time on my publications outside office hours.
3. I cannot find sufficient time to work on my publications.
4. I have no peace of mind when working on my publications.
5. I can combine working on my publications with my other tasks.
6. At home, I do not feel stressed about my publications.

Publication Attitude Subscale

7. The current publication climate puts pressure on relationships with fellow-researchers.
8. I suspect that publication pressure leads some colleagues (whether intentionally or not) to cut corners. (Find easy/fast ways)
9. In my opinion, the pressure to publish scientific articles has become too high.
10. My colleagues judge me mainly on the basis of my publications.
11. Colleagues maintain their administrative and teaching skills well, despite publication pressure.
12. Publication pressure harms other academic work.

Publication Resources Subscale

13. When working on a publication, I feel supported by my co-authors.
14. When I encounter difficulties when working on a publication, I can discuss these with my colleagues.
15. I have freedom to decide about the topics of my publications.
16. When working on a publication, many decisions about the content of the paper are outside my control.
17. I cannot cope with all aspects of publishing my papers.
18. I feel confident in the interaction with co-authors, reviewers and editors.