



Research Article

Public Health Course and Health Education Presentation Assessment: Teachers, Peer, And Self-Reflection

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Abstract

Today, nurses become involved in many formal and informal meetings, and they were asked to present orally of one health issue. Presentation in a Health issues as; an education, promotion. This study was conducted quasi-experimental design and during the fall semester for nursing students in Near East University who are undergraduate-level and going to attend the public health course for the requirement of the fourth year in the English approach. The course was through September 2019 to January 2020. Total of students attend the course were 30 nursing students and all of them were included in the study.

Keywords: Nursing; Peer; Public Health

Introduction

Presentation skills give the presenter the ability to share knowledge, expertise, and to communicate professionally with their audience [1]. Today, nurses become involved in many formal and informal meetings, and they were asked to present orally of one health issue. Nursing students must be prepared in future situation to present such as seminars, poster presentations, conferences, workshops and health promotion teaching [2]. Presentation in a Health issues as; an education, promotion, and prevention is a skills that make nurse students an effective leaders, attractive educators of patients, health members, stockholders, and effective presenter to influence committee of decision-makers in health and social sectors [3].

One of the nurse's roles is to provide the health knowledge, identify resources, and training to individual, population, and

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communities to promote their health and well-being [4]. Having presentation skills, in addition to simplify learning, it influences the positive health behavior changes [4]. However, public health nurses had been poor health programs planning and many nurses report lack of competency to health education [5]. In order to prepare a competent student to be a knowledgeable and skillful nurse in the future, starting early during the undergraduate-level may be useful.

Nursing students during the undergraduate-level take different courses to build the basic of their health knowledge. Some of those courses improve their medical science knowledge to deal with critical cases such as: medical- surgical, physiology, microbiology, biochemistry, anatomy etc. of nursing courses. While, having the health knowledge alone is not enough to presentation in a health issues and in order to connect the nurse students with the practice settings, public health nursing course is the bridge between the nurse students and the community to provide health knowledge in public professionally.

Public health nursing course aims to prepare students to be as an educator in the future to promote health and prevent illness, identify educational activities to use for each of the three domains of learning appropriately [6]. Also, students will be able to select the applicable learning theories for each of an individual, family, and community. Choose the appropriate health-teaching models during the planning to health education activities. Choose teaching methods and materials for patients at different levels to facilitate learning. Apply teaching plans based on the three levels of prevention for different patient's age. Identify teaching strategies to use when deal with special learning needs [4]. Nursing students through the public health courses should be directly influence the health and wellbeing of patients, populations, and communities by having both; health knowledge and presentation skills. Most of studies that carried the presentation skills among nursing were focused on nurses with specialist qualifications or in the practice area [2,3,7-10]. Students in nursing department as they attend to public health courses in the last year of study were supposed to have the most of knowledge and skills which are required to presenting such health issues on public.

In literatures, studies used the student self-evaluation, peers evaluation and teacher evaluations as an assessment and evaluation strategies, which are consider common source of external feedback on student learning [11,12]. Both internal and external sources of assessment and evaluation are influence the calibration process to reach higher performance levels in the context of productive self-regulated learning through the self-monitoring [13,14]. While this strategy was applied in many studies in different disciplines [15-20], it's important to improve such these skills for the nursing students, in order to provide an educational role, health promotion, and prevention and maintains to individuals, family, group, and communities with knowledge, culture, and education diversities [4]. Thus, self and peer-assessment requires careful design and application for it to be an effective strategy for formative assessment processes. Development of students' abilities for giving feedback, in conjunction with the continuous and well-time involvement of the teacher, are the vital aspects for successful self and peer-assessment [13].

This study aimed to evaluate the presentation skills of undergraduate-level nursing students using the teachers, peer, and self-evaluation. That we expect that nursing students after the public health course lectures may show improvement in their presentation skills for health issues in public.

Methods and Materials

This study was conducted quasi-experimental design and during the fall semester for nursing students in Near East University who are undergraduate-level and going to attend the public health course for the requirement of the fourth year in the English approach. The course was through September 2019 to January 2020. Total of students attend the course were 30 nursing students and all of them were included in the study.

Intervention

The study was in two parts; interventional period (Public health course lectures) and evaluation period (Student's presentation).

1. Public health course lectures period for students: "Public Health Nursing Population-Centered Health Care in the Community" is the main reference of course topics [4]. During the fall semester students attend to 6 hours a week for 16 weeks. The teacher, who has the PhD degree in public health nursing and teaching experience for 26 years, presented a different public health topic each week. Lecturer used the discussion as a teaching strategy, deliberate by audio visual method such as: PowerPoint, pictures, and videos. Class was based learner central role, and the teacher role was to support and promote the class as facilitator and evaluator.
2. Public health nursing topics included: the history of public health, setting the stage for community health nursing, evidence-based practice and ethics in community health nursing, transcultural nursing in the community, epidemiology in community health care, communicable disease control, environmental health, occupational health and safety, planning and developing community programs and services, being prepared: disasters and terrorism, family health, school health, and older health, and health promotion: achieving change through health education. In the lecture of health promotion and health education, students identify the presentation skills, criteria of prepared slides, and communication skills.
3. Student's Presentations and evaluation period:
4. After finished all the planned lectures, the teacher assigned one public health topic for each student to present orally in the class, that each student had to prepare a PowerPoint presentation and present within 20-30 min and he/she had the free choice to use any teaching strategy. Once the presenter finished his/her presentation, he/she, asked to evaluate him/herself, peer asked to evaluate the presenter, and the presenter also was evaluated by two teachers (public health nursing), presentation skills performance was evaluated by peers, teachers, and the presenter himself/herself using an Evaluation of Oral Presentation Performance (EOPP-14 Items) scale. The EOPP-14 Items is a scale was developed based on literature by authors (Groves, 2014; Haber and Lingard, 2001; Mandel, 2000; Vollman, 2005; Yigit, 2010). Second valuation was orally feedback to share the reflection between the presenter, peer and teachers.

Data collection

1. Socio-demographic questionnaire include Sample characteristics: prepared based on literature by authors in form of self-report [16-19,21]. 10 questions include: gender, nationality, age, presentation experience, and university grade-point average...etc.
2. EOPP-14 Items: The items of this scale (14 items) reflect the common presentation skills recommended for the presenter; introduce self, capture the audience attention, state the purpose and the main idea, organization and preparation, communication with audience, using effective visual aids, appearance and using the body language, and time management [2,7-9,22,23].
3. Oral Feedback: Teachers' reflection and peer's reflection have supportive, comfort, and immediate evaluation for the presenter student, wither was positive or negative. Also, self-reflection of the presenter, feelings, challenges, weak and strong points he/she faced for this experience.

Ethical consideration

Institutional Review Board (IRB) of Near East University was obtained (YDU/2020/76-979), and consent form was signed from all students, study follow Belmont Report of ethical human rights [24]. Students have the choice to participate, refuse, or withdraw at any time. And they informed that their choices will not affect their real evaluation in the course.

Statically analysis

SPSS version 22 was used to statically analysis of data. Sample characteristics were descriptively analysis, frequency and percentage for categorical variables, mean and standard deviation for contentious variables. After normality test, parametric test was used to compare means using One-sample test and the target evaluation score of 56 as a test value. The three assessment strategies tested using Paired-sample test with each one and with sample characteristics using independent-sample t-test.

Results

A total of 29 students completed the public health course, attend and present in the evaluation part, a response rate of 96.6% that one student not attend the presentation period. The age of the student's range 21 to 33 years, mean age 24.96 ± 3.27 . Most of students were female (62.1%) and Zimbabwean (58.6%), more than half of the student's Grade Point Average was more than 3 of 4 (62.1%). All students had prepared presentation slid 10 or more times before, and more than half of them presented 10 or more presentations in class previously Table 1.

The mean evaluation score of presenter's students were 41.55, 44.77, and 53.17 for teachers- evaluation, peer- evaluation, and self-evaluation, respectively. Teacher's evaluation was the most away from the test value mean (mean differences= -14.44), and self-evaluation was more close to the test value mean (mean differences= -2.82). The lower score given was by teachers (26) while the higher score was given by self-presenter (56) Table 2.

The mean evaluation scores were correlated against the characteristics of the students. Results show a significant difference for teacher's evaluation against the gender ($t = -2.365, p = 0.025$) and for peer's evaluation against the nationality ($t = -2.432, p = 0.022$). While there

		n= 29	%
Age	24.96 ± 3.27 (min= 21, max=33)		
Nationality	Nigerian	12	41.4
	Zimbabwean	17	58.6
Gender	Male	11	37.9
	Female	18	62.1
GPA	< 3	11	37.9
	≥ 3	18	62.1
Presentation	< 10	12	41.4
	≥ 10	17	58.6
Slide	< 10	0	0
	≥10	29	100

Table 1: Characteristics of Study Subjects.

Total Score=56	Min	Max	M ± SD	Mean difference	t	p
Teacher	26	54	41.55±7.16	-14.44	-10.85	0.001
Peer	39.8	48.5	44.77±2.33	-11.22	-25.86	0.001
Self	48	56	53.17±2.46	-2.82	-6.17	0.001

Table 2: Difference in the three evaluation strategies score of Health Presentation from the target score, Score value= 56, 95% Confidence interval (N = 29).

were no significant differences found for any evaluation of teachers, peer, or self against GPA, previously prepared or present of slides.

The significantly difference was shown in teachers-evaluation and self-evaluation paired ($t = -8.18, p = 0.001$), indicated high mean evaluation scores by students themselves away from teachers- evaluation (mean difference= -11.62). When we compared both peer-evaluation and self- evaluation, mean evaluation was also significantly difference ($t = -14.24, p = 0.001$). Significant difference was shown between teachers-evaluation and peer-evaluation ($t = -2.90, p = 0.007$) indicated even the peer-evaluation was away from the teacher-evaluation. However, the paired of teachers and peer- evaluation mean shown a significant correlation ($r = 0.63, p = 0.001$) while no correlation found in teacher and self- evaluation paired or peer and self-evaluation paired (Table 3).

Discussion

Public health nursing have to improve their competence through high education and training to meet the professional practice to deal with individuals, people, and communities [5]. Each nursing student after the graduation they should perform a health educator role; health education, health promotion, and prevention [4]. However, students during the undergraduate level must learn this role, it's difficult to determine if the student able to gain this role through the classical education alone or not. Day by day, combination of self and peer –assessments with teacher assessments gets concern of researchers in high education, as it plays a vital role to facilities the learning in the classroom [13,19,20,25,26]. However, teachers still have the

	Means SD1	Mean SD2	Mean difference	t	p
Teacher1 –Self2	41.55±7.16	53.17±2.46	-11.62	-8.185	0.001
Self1 – Peer2	53.17±2.46	44.77±2.33	8.39	14.247	0.001
Teacher1 – Peer2	41.55±7.16	44.77±2.33	-3.22	-2.904	0.007

Table 3: Paired differences of mean score of three assessment strategies.

superior in formative assessment in higher education, both self- and peer assessment are expected to decrease the central role of the teacher in assessment activities if well directed [11,27].

Adaptation of Self-evaluation in learning techniques involves reflecting one's action and embracing one's identity [21]. So, the Self-assessment mostly impacts student performance through enhanced self-efficacy and self-motivation [20]. Knowing that there is a continuous argument observed about the reliability of self- and peer assessment in relation to the development of presentation skills [11,15,28]. In this study, the Self-evaluation scores ($m = 53.17$) were very close to target score (56) and higher than the marks given by teachers ($m = 41.55, df = -11.62$) and the scores were given by the presenter to him/her- self were significantly higher compared with teachers and peer- assessment scores ($p \leq 0.05$). This logically to be observed here and agreed with previous studies [11,25]; that students were unreliable and not objective when they evaluate themselves. Most likely, students give themselves high scores, thinking that their evaluation maybe taken into account by the teacher. Thus, the learning needs to involve students frequently in assessment and evaluation of education plans during the oral presentation, in order to increase their self-confidence and self-efficacy, and therefore improve their performance later in such public presentation.

The reliability of evaluation of oral presentations can be improved by combining teacher scores with the average scores given by multiple peer ratings [25]. About all of studies agreed that teachers- evaluation had lowered mean than peer- evaluation [11,29,30]. And this supported by our study, that peer- evaluation mean was 44.77 and this scores were somewhat away from the target score (56) and between the teachers- evaluation mean and self- evaluation mean ($p \leq 0.05$). While the peer scores were slightly close to teacher scores ($df = -3.22$) and away from self- evaluation ($df = 8.39$). This suggests that peer students have low self-efficacy levels of assessment skills which can affect the nature and quality of their evaluation. And maybe, students reflected a low level of comfort and a low degree of confidence in front of their teachers and at the same time against their friends as a presenter. Moreover, peer- evaluation were correlated with teachers-evaluation ($r = 0.63, p = 0.001$). This may explained that students had affected by the public health nursing course and show improvement in presentation skills which let them able to be objective in external evaluation and follow the criteria of the good presentation performance.

While the literatures have widespread arguments of the reliability of self and peer assessments compared with assessment by teachers, the dominant assumption assessment by the teacher is more reliable and more valid [11,30]. Some studies reported lower correlations values between self- and teacher assessments than between teacher and peer assessment [15,28]. These scoring differences can be explained by the comprehensive view and large experience of teachers when he evaluate the quality of oral presentations. In Literature, gender in many

studies had effects by peer-evaluation [11,31]. For more places, male peers allocated higher scores to female presenters than female peers did and female presenters get higher scores than male presenters with their teachers or their peer [11]. This was consistent with the results of this study, that there was a significant difference about the gender of presenter and teacher-evaluation ($t = -2.365$, $p = 0.025$). May that related to the human personality of female tend to be more assertive than males.

No literature shows differences against the nationality of presenter in teachers or peer-evaluation. In our study, there was a significant difference shown about nationality of presenter in peer-evaluation ($t = -2.432$, $p = 0.022$). This may explained to cultural reasons that some students had a sense of belonging to the same race especially in a foreign land.

Magin and Helmore students took two different lectures to improve their presentation skills, some little differences but the same idea was applied in that study. Before the presentation the lecturer gave one lecture which is the "health promotion: achieving changes through education" that it was a four hours course included the presentation skills for a group audience. Therefore lecturers getting prepare students for that with projects or oral presentations etc. during the bachelor education of the students. Almost every student has been prepared presentation during the last year of bachelor education but they didn't formal evaluated except verbal evaluation. The evaluation got 3 different ways; peer, self and teacher. Evaluation of lecturers is substantial when they tried to teach them for health education which is including communication and presentation skills. In so far as the education curriculum of nursing will design with these evaluation studies. So the strengths of this research are that it evaluated in three areas.

Conclusion

Accordingly, Students did not reliable about judging their own work while they seems to be more objectively when they evaluated each other after receiving the public health nursing course. Teacher's strategies in learning process lack to strengthen the student role in assessment and evaluation. Great emphasis to be placed on learning strategies in order to encourage and accustom students to make use of such share the teacher role through frequently present a health topic in the class and to acquire the presentation skills. Also, Curriculum improvements will enhance student's skills and give the advantage of being well prepared for the future changes in health care.

Authorship statement

K.S, H.B and K.E designed the study. H.B performed the interventional period. K.S and K.E performed student's presentation evaluation period. K.S and H.B analyzed the data. K.S and K.E wrote the paper with input from all authors.

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