

ALUMNI'S SATISFACTION SURVEY

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Background of research work

The World Medical Education Association and WHO recommends reducing the overload of medical education, improving the benefits, and developing a unified program to ensure the unity of theory and clinical science and to equip the graduates with the knowledge, skills, attitudes, or comprehensive competencies required for the workplace of doctors and medical specialists, as well as, the program content, methodological environment, and evaluation methodology to be refined and continuously developed in the framework of international, regional, and local schools [1], [2]. In the "Law on Health", the priorities of Mongolia's healthcare sector are defined as "public health care services" [3]. The primary purpose of the Public Health care services is to study and evaluate the health of the population in relation to the external environment and society, to develop and implement policies based on it.

In Mongolia hygienists were trained to assist in hygiene and epidemiology from 1963 until the 1990s. Considering the social development, the international trends of this scientific concept, and the new approach of PH, from 2000, PH researchers have been trained and the bachelor's program of the profession is continuously being updated.

Regular evaluation and feedback of implementation of a training program by an educational institution is one of the foundations for the successful implementation of any training program.

In 2014, comprehensive competences of PH professionals were defined as "public health experts, researchers, policy and program developers, planners, effective partners, respondents, cultural and ethical advocates, community workers and influencers, financier, manager, leader" and pointed out 95 skills that should be mastered.

In the Law on Health, the priority direction of Mongolia's health care sector is legislated as "public health care services". In order to improve the program, the SPH regularly organizes a satisfaction survey of the graduates who have completed the bachelor's program of PH researcher.

Purpose of the study: To study the satisfaction of the graduates who have completed the bachelor program of PH researcher.

Survey Methodology:

In the study, 150 graduates of the SPH who graduated after 2012 were included and used a questionnaire with 26 questions to determine satisfaction from the one-topic thesis "Some problems of evaluation of integrated medical education program" created by researcher D. Otgonbayar in 2010. The main content of the question is the goal, objectives, organization, implementation, content of the course, theory-practice course coherence, knowledge, skills, attitude acquired through the course, its use in the workplace, teachers' teaching methods, and

student evaluation method, its rationality, reliability, learning environment, books, textbooks, and access to material bases were clarified.

Processing of the study results

After the database was reviewed, it was transferred to the statistical STATA extension and the analysis was performed. Descriptive analysis was performed on the results of the study and results were formulated by calculating the average value, median value, maximum and minimum value of each indicator of satisfaction, comprehensive competence, and evaluation criteria. The hypothesis of differences for each evaluation parameter was tested by non-parametric test, and the hypothesis was considered to be true if the p value was less than 0.05.

Research results

22 (14.7%) of the 150 alumni's who graduated with the degree of PH researcher were male and 128 (85.3%) were female. The 51.3% of graduates were from urban areas and 48.7% from rural areas, and their average age was 28.6 ± 2 . Regarding the year of graduation and field of specialization of the graduates involved in the research:

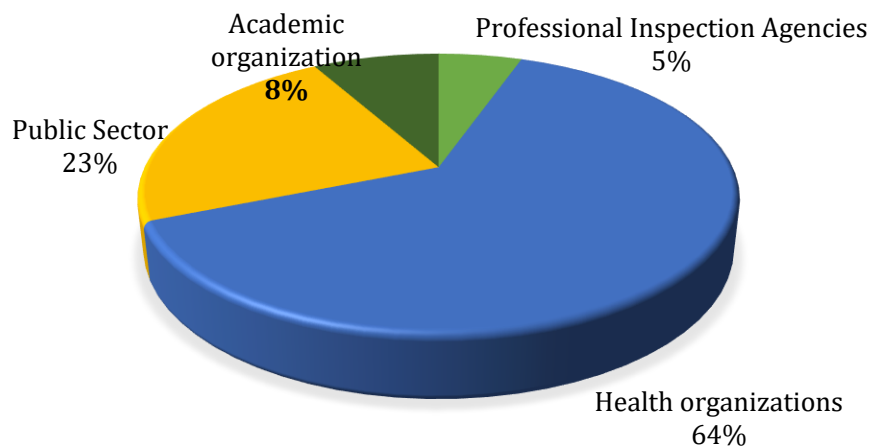
- 4.8% (n=7) graduated in 2012 as PH researcher
- 20.6% (n=31) graduated in 2013-2015 as public health researchers (hygienists),
- 74.6% (n=112) graduated in 2016-2021 in the field of Public Health Researcher/Hygienist/Epidemiologist

Table 1. Some socio-demographic data of the surveyed graduates

Variables	Graduates (n=150)	
	Number	Percentage
Gender		
Male	22	14.7%
Woman	128	85.3%
Mean Age	(M) 28.6 ± 2	
Location		
Urban	77	51.3%
Rural	73	48.7%
Employed years		
Up to 1 year	49	32.5%
1-5 years	63	41.8%
6-10 years	38	25.7%
The year of graduation from the SPH		
2012	7	4.8%
2013-2015	31	20.6%

95 (63.5%) of the graduates of the SPH were working at tertiary level of health care institutions and specialized hospitals in Ulaanbaatar and rural areas, 9 (8.2%) were working as specialists, epidemiologists, hygienists at professional inspection agencies, and 12 (8.2%) were working as teachers and researchers in academic institutions such as MNUMS, National Center for Public Health, and 34 (22.9%) were working as managers in charge of quality standards in large food factories.

Figure 1. Graduate employment information



Graduates are employed 1–24 months after graduation, and 80% of them are employed within 6 months of graduation.

75.6% of the graduates believed that their own interest, 17.1% family, 12.2% role models of doctors and medical specialists, and 7.3% the “homeroom” teacher who led the class influenced their choice of this profession.

The following results were obtained from the study of the satisfaction of the graduates with regard to the program of PH researcher. Among them: for teaching methods of teachers, 83% of students were satisfied with the objective evaluation of knowledge and skills, while 72.9% of them said that the student study load was appropriate.

Also, it was concluded that 60% were more satisfied with the organization of the program, coordination between subjects, learning environment, and the adequacy of books and textbooks.

Table 2. Alumni's evaluation of the PH researcher program

Indicator	Very satisfied	Satisfied	Average	Not satisfied
Program overall organization	22.90%	41.80%	27%	8.30%
Integration of curriculum	18.90%	44.60%	31%	5.50%

Lecturer's teaching methodology	32.40%	51.30%	16%	
Knowledge and skills were objectively assessed	33.80%	47.30%	14.8%	4.10%
The learning environment is good enough	32.50%	31.10%	28.4%	8.00%
Books and textbooks are enough	30.20%	33.70%	29.7%	6.40%
Student study load is appropriate	33.70%	39.20%	25.6%	1.50%

Table 3. Comparison of evaluations given by graduates according to graduation year

Graduated year	Program organization is good						P value
	2012		2013-2015		2016-2021		
Evaluation	N	%	N	%	N	%	
Bad	0	0	1	3.13	1	8.3	p=0.01
Medium	1	33.33	9	28.13	30	27	
Satisfied	1	33.33	9	28.13	47	41.85	
Very satisfied	1	33.33	13	40.63	34	22.9	
Integration of curriculum							
Bad	0	0	2	6.25	6	5.5	p=0.468
Medium	1	33.33	8	25	35	31.0	
Satisfied	1	33.33	13	40.63	50	44.6	
Very satisfied	1	33.33	9	28.12	21	18.90	
Teachers' teaching methods are good							
Medium	1	33.33	3	9.38	19	16.0	0.229
Satisfied	1	33.33	15	46.88	57	51.3	
Very satisfied	1	33.33	14	43.74	36	32.4	
Acquired knowledge and skills are assessed objectively and fairly							
Very bad	0	0	0	0	0	0	p=0.085
Bad	0	0	2	6.25	5	4.10	
Medium	0	33.33	7	21.88	16	14.8	
Satisfied	1	66.67	10	31.25	53	47.3	
Very satisfied	2	33.33	13	40.62	38	33.8	
There are enough tools and equipment for training							
Very bad	0	0	0	0	0	0	p=0.453
Bad	2	66.67	5	15.63	11	8.0	
Medium	0	0	8	25	32	28.4	
Satisfied	0	0	11	34.37	34	31.10	
Very satisfied	1	33.33	8	25	35	32.5	
Books, textbooks and manuals are sufficient							
Very bad	1	33.33	0	0	0	0	p=0.142
Bad	0	0	3	9.38	1	6.4	
Medium	0	0	8	25	34	29.7	
Satisfied	2	66.67	12	37.5	38	33.7	

Very satisfied	0	0	9	28.12	39	30.2	
The student's study load is appropriate							
Bad	0	0	1	3.13	0	0	p=0.513
Medium	0	0	6	18.75	29	25.6	
Good	1	33.33	14	43.75	45	39.2	
Very good	2	66.67	11	34.37	38	33.7	
Whether the acquired knowledge and skills are sufficient to perform the tasks specified in the job description							
Very bad	1	33.33	0	0	0	0	p=0.180
Bad	1	33.33	4	12.9	2	2.6	
Medium	0	0	12	38.71	25	22.0	
Good	1	33.33	6	19.35	40	35.4	
Very good	0	0	9	29.04	45	40.0	
Total	7	100	31	100	112	100	

When comparing whether the graduates were satisfied with the quality of the PH researcher and hygienist programs, the graduates who graduated with the PH researcher degree in 2013-2015 rated it statistically significantly higher than the graduates who graduated from other programs. ($p < 0.001$)