

# Predictors and Motivation of Preceptors' Interest in Precepting of Pharmacy Interns—Do We Have a Useful Questionnaire?

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**Purpose:** To determine the potential value of an adapted questionnaire to discover the predictors of preceptors' higher interest in precepting pharmacy interns and to evaluate preceptors' motivational factors and incentives for teaching as well as their professional satisfaction.

**Method:** A link to the survey study of adapted questionnaire (JSAMPPP) was e-mailed to all pharmacists registered with the Pharmaceutical Chamber of the Republic of Srpska. Pharmacists' demographic and work experience characteristics, their attitudes related to motivation for precepting, value of incentives for precepting, job satisfaction, and influence of interns on pharmacists' professional practice were obtained.

**Results:** Half of the preceptors who reported feeling satisfied with their professional life also showed interest in teaching. In addition, teaching pharmacy students positively contributed to the overall job satisfaction of the preceptors. Pharmacy preceptors were found to be most motivated by intrinsic factors. The most valued incentives reported were those related to continuing education.

**Conclusions:** The adapted questionnaire has potential value and it revealed the following predictors of preceptors' higher interest in precepting: enjoyment of teaching, satisfaction with professional life, satisfaction as a pharmacy preceptor, and interns' influence on preceptors. These identified predictors can be emphasized to improve pharmacy students' internship experiences, thereby reinforcing the pharmacy profession.

**Keywords:** pharmacy internships, preceptors' motivation, incentives, predictors, precepting, questionnaire

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Investing in education, training, and development of health care professions must become a global imperative because no health care system can sustain without a well-qualified health

workforce.<sup>1</sup> Health professionals must demonstrate that their education prepares them for patient-centered, interprofessional, and collaborative practice. Therefore, experiential and interprofessional teaching and learning activities that enable such practice will fundamentally influence the design of educational programs in health care sciences.<sup>2</sup> In addition, education of health care professionals is specifically regulated by legislation and quality standards regarding experiential education and internship at the national and international levels.<sup>3,4</sup> Modern health care curricula include experiential education as an integral part, where mentors/preceptors play important roles and have a significant impact not only on students' knowledge, but also on their professional skills and attitudes.

Challenges, such as WHO's prediction of a significant shortage of health care professionals by 2030,<sup>5</sup> and a decline in the density of pharmacists in some countries due to migration,<sup>6</sup> highlight a need for motivated and satisfied preceptors.

However, the tools to assess the interest and motivation of health care professionals to teach interns are limited,<sup>7,8</sup> and there are none that can determine the predictors of such attitudes. Previous studies have presented diverse results regarding motivational factors for precepting,<sup>7-14</sup> the majority of which were cross sectional studies of the motivation of health care professionals in different settings measured using various questionnaires. In a study conducted in North Carolina, the preceptors reported intrinsic motivational factors (demonstrating daily practice, enjoyment of teaching, and intellectual stimulation) as most valuable,<sup>7</sup> which is consistent with the

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results of studies by May and Flowers.<sup>9,10</sup> By contrast, Deci and Murawski suggested that extrinsic motivational factors (eg, monetary payments) are more valuable, as also reported by Langlois and Baldor.<sup>11–14</sup>

The main objective of this study was to determine the potential value of an adapted questionnaire to assess the predictors of pharmacy preceptors' higher interest in precepting pharmacy interns.

A broader objective was to use the adapted questionnaire to evaluate pharmacy preceptors' motivational factors and incentives for teaching interns as well as their professional satisfaction.

## METHODS

The study obtained ethical approval by the Ethical Committee of the Pharmaceutical Chamber (Srpska). Participation in the study was voluntary and anonymous. A cross-sectional study design was used to collect data from April to June 2017 through an online, self-administered questionnaire.

An adapted version of the JSAMPPP (Job Satisfaction, Attitudes, and Motivation of Preceptors in Pharmacy Practice)<sup>7</sup> was used for data collection after obtaining permission from the corresponding author. The original questionnaire was adapted by following the processes of forward and backward translation, and social-cultural adaptation.<sup>15</sup> Thereafter, the questionnaire was pretested on a group of 10 pharmacists. The translated questionnaire was independently tested by 10 pharmacists not associated with the research team. After completing the questionnaire, each pharmacist had a brief interview with the principal investigator discussing the clarity, preciseness, and intelligibility of questions. Final adjustments to the translated questionnaire were then made based on the testing pharmacists' comments. The data from the pretest group were not included in the final analysis.

The adapted questionnaire used a five-point Likert scale to measure pharmacists' attitudes in the following areas: (1) motivation for precepting, (2) valuing incentives for precepting, (3) job satisfaction, and (4) influence of interns on their professional practice.

An online version of the questionnaire was prepared using Google forms. A link to the questionnaire, along with infor-

mation on the purpose of the study, was sent to all 930 pharmacists registered with the Pharmaceutical Chamber (Srpska) through e-mails, and a reminder was sent 4 weeks later.

Descriptive statistics were used to analyze the sample characteristics. Chi-square tests were used to analyze potential significant associations between the independent variables (potential predictors) and preceptors' interest in working with pharmacy interns.

Statistical significance in all analyses was deemed likely if the computed probability value was <.05. Data analysis was performed using SPSS version 18.0.

## RESULTS

The survey response rate was 12.9% (120/930). Responses were only considered from those pharmacists who stated that they were engaged as preceptors. Accordingly, 48 responses were excluded, and the final sample consisted of 72 responses. The majority of respondents (87.5%) were females, aged 31 to 40 years (55.6%), and most had 6 to 15 years of work experience. They served an average of  $392.6 \pm 305.8$  patients/wk and had a mean precepting experience of  $4.5 \pm 5.1$  years with an average of  $22.8 \pm 17.3$  wk/y.

The analyses showed that the following factors were predictors of pharmacists' higher interest in working with interns/students: high or very high enjoyment of teaching, high overall satisfaction with professional life, high satisfaction with previous experience as pharmacy preceptors, and interns' positive influence on preceptor's overall job satisfaction (Table 1).

Enjoyment of teaching, intellectual stimulation, demonstrating actual practice, and recruiting future partners were estimated as the most important intrinsic motivational factors for precepting interns. Monetary payment as an extrinsic motivational factor was not shown to be important. The most valued incentives were those related to continuing education.

Preceptor professional life satisfaction was measured on a five-point Likert scale: (1) very dissatisfied, (2) dissatisfied, (3) neither satisfied nor dissatisfied, (4) satisfied, and (5) very satisfied. The median level of professional life satisfaction was 4 (satisfied), interquartile range 3–4.

Dissatisfaction was mostly associated with income and benefits, along with the limited time that preceptors reported

**TABLE 1.** Pearson's Chi-Square Test of Independence on Preceptor's Interest in Working With Pharmacy Interns (N = 72)

Variables	Preceptors Attitudes	Prevalence of Preceptors Interested to Teach Interns, n (%)	Chi-Square Test value (P)
Enjoyment of teaching	Very high, high importance	41 (77.3%)	5.9 (.015)
	Some, low, no importance	9 (47.3%)	
Overall degree of satisfaction with professional life	Very satisfied, satisfied	33 (82.5%)	7.2 (.007)
Overall degree of satisfaction with experience as a pharmacy preceptor	Very dissatisfied, dissatisfied, neither satisfied or dissatisfied	17 (53.1%)	10.9 (.001)
	Very satisfied, satisfied	34 (85%)	
Interns' influence on preceptor overall job satisfaction	Very dissatisfied, dissatisfied, neither satisfied or dissatisfied	15 (48.4%)	19.7 (<.0001)
	Very positive, positive	40 (86.9%)	
	Very negative, negative, neither positive or negative	9 (36%)	

Comment: the influence of all variables on pharmacists' interest in working with pharmacy interns have been tested by Pearson's Chi-square test of independence, but only statistically significant influences ( $P < .05$ ) have been shown in the table above.

having for themselves. Relationships with patients, colleagues, and superiors were aspects where the preceptors felt mostly satisfied.

According to the preceptors' attitudes, pharmacy interns have a high positive influence on the pharmacists' overall job satisfaction, but have negligible influence on their daily practice.

## DISCUSSION

Our study showed that the adapted version of the questionnaire<sup>7</sup> could be used to determine the predictors of preceptors' higher interest in precepting pharmacy interns. The most important findings are regarding the positive attitudes related to teaching, positive previous experience as pharmacy preceptors, and satisfaction with professional life, which are the factors with the greatest influence on positive interest in precepting for preceptors in pharmacy practice in Srpska. Our findings could be useful in the reinforcement and improvement of internship as a part of the professional education and development system in the coming years.

Preceptors in countries from the West Balkan region and beyond are not obligated to teach pharmacy interns. They receive incentives in the form of continuing education credits for teaching and little to no remuneration for this additional engagement.<sup>3</sup> Further analyses are needed to identify additional ways to motivate preceptors and facilitate the efficient achievement of internship educational outputs.

The results of the current study have revealed that intrinsic motivational factors were the most valuable to preceptors in Srpska, which is consistent with other studies.<sup>7,9,10</sup> The discussion about intrinsic and extrinsic factors is rooted in Deci's<sup>11</sup> published results suggesting that extrinsic rewards undermine intrinsic motivation. The findings from Langlois<sup>13</sup> and Baldor et al<sup>14</sup> agree with the findings of Murawski et al,<sup>12</sup> suggesting that an increase in extrinsic motivation increases pharmacists' satisfaction more than an increase in intrinsic motivational factors.

Research within the scope of pharmacists' professional development and experiential education is of high importance (particularly for young pharmacists) for the advancement of pharmacy practice and pharmaceutical service development and implementation. By identifying the predictors of preceptors' interest in precepting pharmacy interns and pharmacists' motivational factors for professional development and improvement of experiential education, such studies could have a direct impact on higher motivation for reinforcing the pharmacy profession.

Our study showed the addition value of the JSAMPPP questionnaire. The validity and reliability of the predictors that have been discovered remain to be demonstrated in further research.

### Limitations and Strengths of the Study

The main limitation of this study is regarding the age representativeness of the sample. Higher digital literacy among the younger population is a probable explanation for the majority of the participants in this study being 31 to 40 years old. However, this study contributes in meaningful ways by highlighting the lack of tools to assess the health professionals' motivation to teach interns. Furthermore, this study has addi-

tional national significance because it introduced a new way of data collection (with pharmacists), that is, through e-mailed questionnaires. The low response rate could also perhaps be explained by the fact that this is the first study in Srpska where e-mailed questionnaires have been used.

## CONCLUSION

Our study determined the potential value of an adapted questionnaire (JSAMPP). This study revealed the predictors and showed that pharmacy preceptors interested in teaching were those who were satisfied with their professional lives, felt enjoyment in teaching, and were positively influenced by pharmacy interns during their internship. It also showed that preceptors in Srpska are more motivated by intrinsic motivational factors than by extrinsic factors. These results will be valuable for further research (especially in the aspects of motivation and interest in teaching) among pharmacists to accept their roles in the education of their younger colleagues, which in turn could help in creating a positive work environment.

### Lessons for Practice

- Experiential education is an integral part of the academic process of the development of pharmacy students' knowledge, professional skills, and attitudes. In this process, mentors/preceptors play an important role and can have a significant impact. Pharmacy practice and pharmacists' education in current times are the most challenging of all health care professions.
- The predictors for pharmacists' higher interest to precept are: enjoyment of teaching, overall satisfaction with professional life, and satisfaction with previous experience as pharmacy preceptors.
- These findings should be further explored for pharmacy practice around the globe continuously to develop valuable tools and methodology for the improvement of our teaching/professional practice.

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