Background: It has been agreed upon by educators and scholars that one of the key successes in any educational setting is promoting the professional development of teachers. Having this in mind, the researchers of the present study investigated nursing English for academic purposes (EAP) and instructors’ perceptions of knowledge sharing. In addition, they sought whether EAP instructors’ perceptions of knowledge sharing would predict their professional development.

Methods: Nineteen EAP instructors from different medical universities across the country were recruited in the present study. Two questionnaires of ‘EAP instructors’ perception towards knowledge sharing’ scale and ‘a teacher professional development’ were used to gather data. A semi-structured interview was also performed to explore the participants’ opinions regarding the inhibitors to develop teacher learning communities.

Results: The results showed that the mean of EAP instructors’ perception of knowledge sharing in the sample group was 2.90 with a standard deviation of 0.358 which was lower than the expected average (3). Also, there was a positive and significant relationship between the perception of EAP instructors and knowledge sharing with respect to the level of significance (sig = 0.000) and the error rate of 0.01 with their professional development.

Conclusion: Knowledge management can become a rudimentary strategy which may pave the way to personal/professional development. This study sheds light on the importance of collaborative work which should be formed into a strategy which may pave the way to personal/professional development.

Key words: EAP instructors, professional development, knowledge sharing
INTRODUCTION

Learning a foreign language, especially English, has become increasingly important in all fields of study. In the postgraduate courses, the use of English resources becomes an integral part of that field of study. This is especially the case in medical fields (1). Nursing students need to learn English due to the importance of their future careers and the need to identify, access, select, and use a wide range of information that should be updated regularly. Unfortunately, many students have not been able to achieve English Language for a variety of reasons. In this regard, Rajprasit, Pratoomrat and Wang stated that there is a growing demand in the medical and paramedical fields to master English language skills. This is due to the nature of these disciplines and the need for international interactions in them (2). It is more than four decades that ESP (English for specific purposes) in general and EAP in particular are being taught in Iran. All students majoring in various fields are required to pass a three-credit course named General English which is followed by course in English called EAP. The three-unit course puts a heavy emphasis on reading comprehension skill and general vocabulary development. Similarly, for EAP course, reading comprehension is of great importance. The aim of English for Specific purpose courses is to prepare students to read texts and common words related to the subject matter they are studying. In general, the ESP course is based on two assumptions: a) compliance of the content of the course with the field of study b) limited improvement of writing and reading comprehension skills as well as grammar and vocabulary (3). However, apart from the requirement of the course, what seems to be important is the instructors’ qualities and their potentiality in teaching EAP.

Teachers’ professional development is one of the concerns in educational settings which is essential for both teachers’ and students’ success (4-6). In recent years, there has been a tendency toward professional development of EFL teachers which helps teachers acquire new knowledge and experience in order to have a more efficient and successful teaching experience. Professional development is the endeavor to improve teachers’ professional knowledge “beginning with initial training and lasting for as long as a teacher remains in the profession” (7). In other words, apart from personal qualities, teachers should acquire professional knowledge and specialized skills. For such an end, teachers take part in activities developed for professional development (8). Professional development may result in teachers’ involvement in the process of teaching-learning processes and helps teachers share knowledge and skills and thus overcome the frustration they may have in their daily practices (9).

Despite the fact that there is no unanimous agreement over the concepts of professional development, one can see two approaches to it. Formal professional development requires teachers to attend in-service education program courses; on the other hand, informal professional development which is self-initiated involves teachers’ daily experiences or informal contacts with more experienced teachers (10). Both formal and informal settings can be used in teacher learning communities. It is through such communities that instruction is promoted (e.g., 11, 12).

Another issue which seems to be related to teachers’ professional development is knowledge management. It is defined as “the process of gathering, managing and sharing…knowledge…throughout the organization” (13: 37). It is through knowledge sharing that individuals “collectively and systematically create, share and apply knowledge to achieve their strategic and operational objectives” (14: 211). Like many other organizations universities face a competitive pressure, so creating, transmitting, and sharing knowledge among teachers seem to be crucial. When teachers exchange views, “they can inspire each other. At the same time, this exchange may evoke discussions about pedagogy and may as such result in new insights” (15: 2). Knowledge sharing as a unit of knowledge management is “the provision of task, information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures” (16: 117). It has also been defined as “processes that involve exchanging knowledge between individuals and groups” (17: 32). Teachers “must share knowledge among themselves to be better prepared for onward transmission to students, community and the world as a whole” (18: 2). By so doing, experience-based knowledge will be accessible to those who need it. It is through sharing knowledge that new knowledge is developed and views behind practices becomes overt, so that teachers can reflect upon it (19).

As Adamseged and Hong (18) demonstrated, “higher education does not operate in isolation. … higher education institutions are instituted, managed and run by human beings who themselves have been and are beneficiaries of knowledge sharing” (P. 1). In this regard, the literature highlights the role of collaboration among teachers (20-22). Furthermore, as Runhaar and Sanders (15) argued, “knowledge sharing is a learning activity with which teachers not only professionalize themselves, but contribute to the professional development of their colleagues as well” (p.1). To shed light on the influence of teachers’ learning communities, research studies have recently been carried out (e.g., 23, 24). The impact of teachers’ collaboration on their reflection (25-26), professional development, and students’ learning (e.g., 27, 12; 28) have also been investigated. Yet, one of the features that has received less attention in teacher development is EAP teachers’ perceptions towards knowledge sharing. In other words, there is scant research on sharing knowledge in higher education in the realm of EAP. In addition, no study has ever investigated relationship between EAP instructors’ perceptions of knowledge sharing and their professional development. Accordingly, the present study drew upon both quantitative and qualitative research to answer the following questions.

1. What are EAP instructors’ perceptions of knowledge sharing?
2. Is there any significant relationship between EAP instructors’ perceptions of knowledge sharing and their professional development?
3. Does EAP instructors’ perceptions of knowledge sharing
predict their professional development?
4. What are the inhibitors to develop teacher learning communities among EAP instructors?

**METHODS**

Ninety-four EAP instructors (33 males and 61 females) from different medical universities across the country were recruited in the present study. They were selected based on convenience sampling method from universities affiliated to the Ministry of Health and the Islamic Azad University. The instructors’ average age was 34.23 (SD = 4.41) with 2 to 27 years’ experience (M = 11.19, SD = 4.76). They were either EAP instructors at the time the research was conducted or had taught EAP to nursing students at least for one semester in medical universities. Twenty-six participants held a Ph.D. and 68 held M.A. degree in TEFL.

EAP teachers’ perception towards knowledge sharing scale
EAP teachers’ perception towards knowledge sharing scale was developed to measure EFL instructors’ perceptions towards knowledge sharing. To develop the questionnaire (authors, unpublished manuscript), after consulting the literature (29-31), the first draft including 20 items were piloted on 13 M.A. EFL instructors. Then, five experts were asked to pass their judgments on the statements. There were 17 items in the questionnaire and a 5-point Likert scale ranging from strongly agree to strongly disagree followed each item. The value for the Cronbach’s Alpha was 0.76 for the scale.

A teacher professional development scale
The scale which developed by Soodmand Afshar and Ghasemi (32) measured EFL instructors’ professional development. There were 35 items with 5 components in the scale. Each item was followed by a 5-point Likert scale ranging from ‘very much’ to ‘not at all’. The scale was subjected to factor analysis to ensure its validity and reliability and, as reported by the authors, it enjoyed an acceptable reliability index of 0.91.

Semi structured interviews
Semi-structured interviews were performed with 12 EFL instructors. For validity purposes, two experts in the field of applied linguistics were asked to review the questions. The interviewees were required to express their opinions toward inhibitors for developing teacher learning communities. Each interview lasted for 30 minutes. After the interview, the responses were recorded and transcribed.

**Data collection procedures**

The present study was conducted in the first semester of 2019 in the universities of medical sciences. Since the researchers did not have a direct access to majority of EAP instructors, some questionnaires distributed online. Of all 120 EAP instructors’ who received the digital questionnaire, 81 sent them back via email. Thirteen instructors to whom the present researchers had access received the questionnaires in a face to face meeting and filled it in the scale. All respondents were ensured that their names would remain anonymous.

To conduct the study, first, the instructors were told that their participation was voluntary. Next, the EAP teachers’ perception towards knowledge sharing scale and professional development scale were distributed among teachers. Once the relationship between EAP instructors’ perceptions of knowledge sharing and their professional development was established, a semi-structured interview was conducted in Farsi which was later translated into English, and subjected to thematic analysis.

**RESULTS**

The first research question inquired EAP teachers’ perceptions towards knowledge sharing. The following Table shows the results of a single sample t analysis. In this Table, the EAP teachers’ perceptions toward knowledge sharing of the sample group is compared with the theoretical score of 3.

As can be seen in Table 1, the mean score of EAP instructors’ perceptions toward knowledge sharing in the sample group was 2.90 with a standard deviation of 0.338, which was significantly lower (p <0.009) than the cut-off score of 3.

The second research question explored whether ESP instructors’ perceptions of knowledge sharing and their professional development (the first research question). Then, a multiple regression analysis was employed to explore whether ESP instructors’ perceptions of knowledge sharing would predict their professional development. Finally, based on the third research question, data analysis was carried out by the inductive approach of iteratively reading all transcripts and categorizing them into meaningful units (35).

**Table 1. One-Sample Test**

<table>
<thead>
<tr>
<th>EAP teachers’ perceptions toward knowledge sharing</th>
<th>mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9074</td>
<td>.33857</td>
<td>-2.652</td>
<td>93</td>
<td>.009</td>
<td>-.09262</td>
<td>-.1620</td>
<td>.0233</td>
<td></td>
</tr>
</tbody>
</table>
development with 99% confidence and 0.01% error. In terms of the intensity of correlation, EAP instructors’ perceptions towards knowledge sharing ($r= 0.506$) was direct and strong. The third research question investigated whether EAP instructors’ perceptions towards knowledge sharing predict their professional development. Multiple regression analysis was used to determine the relationship and the contribution of each of the factors to the professional development. The first output of the multiple regression analysis was shown in Table 3. The first output of the multiple regression analysis showed that $R$ is equal to $.687$. The value of $R^2$ is equal to $.472$. In other words, the variance of intervening variable as determined by five independent variables showed that these five variables stands for 47% of variance in the dependent variable. Besides, the results of ANOVA revealed that the observed $F$ is equal to 15.746 ($df= 5$) ($P=.000<.05$) with the significant $F$ at .05 indicating %95 which is significant at .05 level. The coefficients of multiple regression analysis of knowledge sharing toward professional development obtained from predicting variables of EAP instructors’ are shown in Table 5. As can be seen in Table 5, the five variables of cultural, reflection, personal, cost and sharing, and organizational have $P <0.05$, so they can explain the variance of professional development. Also, the standardized beta coefficients showed the impact factor of cultural ($\beta = 0.178$ and $t= 2.185$), reflection ($\beta = 0.186$ and $t= 2.216$), personal ($\beta = 0.204$ and $t= 2.365$), cost and sharing ($\beta = 0.194$ and $t= 2.132$), and organizational ($\beta = -0.183$ and $t= -2.132$). Therefore, these variables explained the changes in professional development. The results of parity correlation coefficients (second-order discriminant) showed that the cultural variable as a predictor variable 5.15%, reflection variable 5.29%, personal 29.81%, cost and sharing 7.39%, and organizational explained -4.92% of the variance of dependent variable. The qualitative data from the interviews shed light on the inhibitors to develop learning communities among EAP instructors. In response to the interview question the instructors expressed their positive feelings about knowledge sharing among university instructors. They also reported various challenges to having teacher learning communities. One instructors’ commented:

"There is no incentive for teamwork, and no strategies are suggested to motivate teacher learning communities in universities".

Another instructor reported:

"I think EAP instructors have little information about the importance of teamwork and perhaps they are so confident in their own teaching that they don't care about teamwork".

Instructors’ workload was also regarded as being a challenge as one instructor said:

"We have to hold a lot of classes during the semester, and that's a barrier to thinking and taking time for teamwork".

Competition among instructors was considered as another barrier which was echoed in the following excerpt:

"Sometimes, I think to myself, why should I easily share the important information I have gained with other professors? So I try not to easily pass on my knowledge to other instructors, even at informal gatherings. After all, how I can trust other colleagues".

Insufficient or lack of in-service training was also a challenge as a teacher mentioned:

"There is almost no in-service training for instructors, as if, all instructors are already equipped with the necessary knowledge and skills".

---

**Table 2. EAP Teachers’ perceptions towards knowledge sharing and their professional development**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAP Teachers’ perceptions towards knowledge sharing and their professional development</td>
<td>.506**</td>
<td>.000</td>
<td>94</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

---

**Table 3. Model summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.687</td>
<td>.472</td>
<td>.442</td>
<td>.19603</td>
</tr>
</tbody>
</table>

---

**Table 4. ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3.025</td>
<td>5</td>
<td>.605</td>
<td>15.746</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>3.382</td>
<td>88</td>
<td>.038</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6.407</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In sum, the potential challenges to develop teacher learning communities can be categorized into personal, organizational, and cultural factors. The personal factor included items 1 and 3. Institutional factors were items 4, 6, and 7. However, cultural factors included items 2, 5, and 8.

### DISCUSSION

The study investigated EAP instructors’ perceptions towards knowledge sharing. Based on the results, EAP instructors considered knowledge sharing to be effective and had a positive view towards it. There was also a significant relationship between EAP instructors’ perceptions towards knowledge sharing and their professional development. In addition, the instructors’ perceptions towards knowledge sharing predicted their professional development. As the findings of the semi-structured interview revealed, among other factors, the instructors’ lack of incentive, lack of commitment, and their lack of familiarity with the importance of teacher learning communities were the major inhibitors to developing teacher learning communities among ESP instructors.

Regarding EAP instructors’ perceptions of knowledge sharing, to the best of researchers’ knowledge, no research study has been carried out; however, in line with the present study, Chaudhry and Sivakamasundari (34) who used an unstructured interview to probe into perceptions of school teachers regarding knowledge sharing reported that the teachers were supportive of knowledge sharing. It was also stated that the government and their schools support knowledge sharing through the “Teachers Network”. As to the second and third research questions, we did not find studies that directly deal with the two variables of the study in EAP context; therefore, these results were compared to those of similar studies. Yeh, Huang, and Yeh (35) reported that training program which integrates knowledge management and blended learning significantly improve preservice teachers’ professional knowledge. Similarly, Chen, Chen and Tsai (36) stated that engaging in communities improve teachers’ efficacy through development of their teaching skills and strategies. Hur and Brush (37) also argued that teachers’ participation in a community of practice leads to development of various skills. In the same vein, Kosmas (38) recognized community of practice as “the most important pathway for an effective career development” (p.162).

Regarding the barriers of knowledge sharing, the results reported by Chaudhry and Sivakamasundari (34) corroborated with the findings of the present study. As they concluded, time constraint, stress, reluctance to share knowledge, social issues, and fear of criticism were among the barriers for teachers to share knowledge. The findings are partly in tandem with that of Ipe (29: 352) who stated that several factors namely, the nature of knowledge, motivation to share, opportunities to share, and the culture of work environment may have a negative effect on knowledge sharing. Culture of work environment is particularly important in teacher learning process since learning takes place in particular educational and social contexts, and learning is socially distributed among individuals (39). In addition, research studies (e.g. 40, 41) acknowledged the influence of organizational trust on knowledge-sharing. Ipe (30), in line with the present study, found that cost of sharing including time and effort plays a role as a barrier to knowledge sharing. Moreover, in the present study, EAP instructors’ competition resulted in knowledge hoarding. Similarly, Gupta and Govindarajan (42) asserted that if a member of an organization assumes that power comes from the knowledge, she may be reluctant to share it with other members. Perhaps, the competitive behavior is due to the culture in language schools which may motivate or hinder collaboration among teachers. Jong, Meirunk and Admiraal (43: 1), in this regard, stated that “short-term teacher collaboration initiatives depend on the prior existence of collaborative cultures”.

The findings of the study suggest that knowledge management can become a rudimentary strategy which paves the way to personal/professional development. This sheds light on the importance of collaborative work which should take place within educational settings. However, in the present ESP curriculum of the country there is no training for promoting knowledge sharing and scant attention has been paid to interaction among instructors (44). This may have negative consequences for other aspects of teacher qualities such as professional development.

Based on the findings, the present study can have some implications for EAP teaching.

### Table 6. The inhibitors to develop teacher learning communities among EAP teachers

<table>
<thead>
<tr>
<th>Response</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is lack of incentive for EAP instructors to share their knowledge.</td>
<td>10</td>
<td>83</td>
</tr>
<tr>
<td>2. EAP Instructors do not feel committed to take part in teacher learning communities.</td>
<td>8</td>
<td>67</td>
</tr>
<tr>
<td>3. EAP instructors are not familiar with the importance of teacher learning communities.</td>
<td>7</td>
<td>58</td>
</tr>
<tr>
<td>4. EAP instructors’ workload is an inhibitor to their collaborative work.</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td>5. There is a competitive behavior in universities among instructors.</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td>6. Universities do not support instructors’ learning communities.</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>7. There is insufficient in-service training.</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>8. There is lack of trust among EAP instructors’.</td>
<td>3</td>
<td>25</td>
</tr>
</tbody>
</table>
1. It is evident that culture of learning environment has an influential effect on forming teacher learning communities. In other words, teacher learning depends to a great extent on the culture of educational setting, which influences the professional development activities (45). It is important to remember how opportunities and conflicts which arise as the result of interaction with environment may mediate or hinder teachers learning. University instructors should bear in mind that collaboration may contribute to a culture of learning and by so doing elevate professional practice. As such, EAP instructors’ should understand that both novice and experienced instructors may gain benefit from knowledge sharing (46). Therefore, they should not be too much concerned about problems they may encounter in their teacher-to-teacher interaction and they should make attempt to build positive relationship with their colleagues.

2. In-service teacher training can encourage teacher learning communities and by so doing raise instructors’ awareness as to the knowledge sharing among university instructors.

3. Encouraging either formal or informal dialogues in departments, though not in the scope of the present study, can act as a motivating factor towards sharing knowledge among university instructors. The effect of informal knowledge sharing should not be underestimated since they may contribute to a friendlier atmosphere hence reducing the negative impact of power relations. As such, it is recommended that EAP instructors as members of departments once in a while are called upon by heads of departments in order to share ideas regarding their daily practice. Mann and Walsh (47) emphasized the necessity of such a dialogue since it enhances understanding among teachers.

Further studies can also examine the factors that hinder the knowledge sharing among EAP instructors. Undoubtedly, recognizing obstacles to knowledge sharing can play an important role in educating instructors. Furthermore, research studies can determine whether language teaching professors have a different view of subject matter instructors on knowledge sharing. In addition, Professional development, may have an effect on knowledge sharing since developing the knowledge society in “education requires an optimal development of educational professionals” (48: 1). Accordingly, further study could investigate the possible effect of EAP teachers’ professional development on their knowledge.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

ACKNOWLEDGMENT

The authors are grateful for the assistance of faculty members who participated in the present study.

Financial Support: The authors received no financial support for the research. The code issued for the research is 187-1399/05/01.

Conflict of interest: The authors declare that there is no conflict of interest.

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