

## Educational needs of the European Society of Clinical Pharmacy members

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### Background

The European Society of Clinical Pharmacy (ESCP) is an international scientific society connecting clinical practitioners, researchers, and educators. The ESCP helps to improve the knowledge and skills of its members by various initiatives through the General, Research, Education, and Communication Committees. Each body consists of up to eight members from different countries. The ESCP Education Committee, among other things, initiates, provides, or coordinates the educational events and ensures their high scientific standards.

The ESCP's primary event is the annual symposium, usually held in the autumn. This three-day event features thirteen plenary lectures, interactive workshops, and oral and poster sessions. The Education Committee is responsible for selecting the speaker for Steve Hudson's lecture, which emphasises the educational input into the development of clinical pharmacy and pharmaceutical care and highlights the new directions for the profession.

An additional event, preceding the annual symposium, categorised as Masterclass, is dedicated mainly to young clinical pharmacy researchers and practitioners and consists of a one-day interactive scientific workshop. The Masterclass is usually delivered by one of the ESCP committees and presented by high-calibre experts.

The two-day ESCP workshop is organised in spring, featuring plenary lectures, workshops, and poster sessions. Similarly to the annual symposium, the Education Committee is included in committees responsible for developing the scientific program. Four-hour workshops are organised during both days, giving the participants a practice-driven focus.

Special Interest Groups (SIGs) are specialized groups within the ESCP comprising members passionate about specific topics (e.g., mental health, and deprescribing). SIGs hold online meetings aiming to increase knowledge among practitioners and engage new members.

The ESCP also oversees the International Journal of Clinical Pharmacy (IJCP), a peer-reviewed ISI scientific journal. In addition to regular article submissions, the IJCP annually accepts Best Practice Papers showing the implementation of policies related to various aspects of the medication use process.

Information on all activities is available on the ESCP websites, distributed via email, and advertised through ESCP's social media channels (Facebook, LinkedIn, X). Each event focuses on a specific, contemporary topic

relevant to clinical pharmacy. Some events (webinars, SIG meetings) and articles are available online. The others require personal attendance. The location of each event varies annually, involving local ESCP members in the Organising Committee. All educational events are awarded a certificate of attendance. In 2024, the European Council for Pharmacy Education Accreditation (ECPhA) accredited the annual symposium and spring workshop.

In 2021, the ESCP Education Committee began organising online webinars, which quickly became regular events held on the first Tuesday of each month. These webinars are provided free of charge for ESCP members. Non-members can book and purchase tickets via the society's websites. The webinars last approximately 90 minutes, including a discussion session. The Education Committee has responsibility for the webinar program and invites international speakers to deliver webinars. Topics are selected based on the preferences of ESCP members; some topics continue the topic of annual symposium or spring workshops.

The ESCP Education Committee is interested in ESCP members' needs and attitudes regarding education in clinical pharmacy, which the Society should prioritise. As an element of good practice, the Committee members decided to prepare a questionnaire to evaluate interest in educational activities provided by the ESCP and the need to develop new products to satisfy their current professional demands (empowering its members to excel in their respective fields).

## Aim

The aim was to assess the current educational needs of the ESCP members, and to identify educational activities that the Society could further deliver, and to determine potential barriers in participation at ESCP educational events.

## Method

The ESCP Education Committee developed an online voluntary, anonymous questionnaire using Microsoft Forms. Briefly, a working group was created within the ESCP Education Committee to develop this questionnaire. The group leader designed the skeleton of the questionnaire, and each topic/question was debated in several online meetings of the working group. When a consensus was reached, the questionnaire was submitted to the ESCP General Committee to address each question's importance, relevance, and clarity. The questionnaire was written in English, contained 35 questions, and required around 15 minutes to be completed. The ESCP International Office addressed all members of the ESCP via e-mail with the link to the questionnaire. Participants were invited to complete and submit the questionnaire and could withdraw anytime. Moreover, informed consent was obtained from all respondents at the initial stage, through their agreement to perform the survey. Questions were dedicated to obtaining general information about the participants, their engagement in the events organised by the ESCP, as well as their interests and needs for new educational events. The questionnaire was sent via email on 15<sup>th</sup> May 2024. Subsequently, four reminder emails were sent.

The data were proceeded by descriptive statistics and summarized in tables. Preliminary results were presented during the 2024 Annual Symposium in Krakow, Poland. Findings will be available on the ESCP website.

## Results

### Respondent Characteristics

Out of 417 members surveyed, 81 responses were received, representing a 19.4% response rate across 23 countries. The number of responses from each country is detailed in Table 1. The majority of respondents

identified as pharmacists, as shown in Table 2. The primary professional settings for most respondents included clinical pharmacy departments in hospitals, community pharmacies, hospital pharmacies, and academic institutions, as outlined in Table 3. The distribution of years of professional experience was relatively evenly spread, ranging from less than 5 years to over 20 years, as presented in Table 4.

#### Annual Events (Annual Symposium, Spring Workshop)

Thirty-five respondents (43%) reported attending annual events organised by the ESCP (Table 5). Among them, 11 participants provided suggestions, including new topics and organisation. The most frequently cited barriers for those who did not attend these events included time conflicts, cost, and event location.

#### Masterclasses

Thirteen respondents (16%) indicated they had attended some ESCP-organised Masterclasses (Table 6). The main barriers identified were a lack of information about the event, time conflicts, cost, and event location. Two new topics were suggested, and one respondent suggested the possibility of offering Masterclasses online.

#### Webinars

Fifty-eight respondents (72%) reported attending webinars (Table 7), and 19 of them provided positive feedback, proposed changes in time scheduling, or recommended new topics. Among the 23 respondents (28%) who did not attend webinars, the most common barriers included lack of information about the event and time conflicts.

#### Special Interest Groups (SIGs)

Eleven respondents (14%) did participate in events organised by special interest groups (Table 8). The most frequently mentioned barriers were lack of information about the event and time conflicts.

#### ESCP Publications (International Journal of Clinical Pharmacy)

Fifty respondents (60%) reported reading articles published by ESCP (Table 9). Among those who had not engaged with the publications, the primary barriers were lack of awareness and cost.

#### Attitudes Toward Education

Out of 89% respondents indicated that educational activities provided by ESCP were considered an important or highly important aspect of their membership. The main motivations for engaging in educational activities included exchanging ideas and experiences, learning, and enhancing existing knowledge and skills. As shown in Tables 10, 11 and 12, financial support or certification were considered less significant factors.

As detailed in Table 13, respondents expressed a preference for receiving information about educational activities via email, the ESCP website, and LinkedIn.

#### Preferences for In-Person vs. Online Events

No significant preference was observed between in-person and online events (Table 14); 85% of respondents actively seek online education opportunities (Table 15). The most preferred methods of education included practical workshops, interactive seminars with group discussions, and viewing short videos (Table 16). Most respondents (90%) preferred evaluating knowledge through case-based problem-solving or completing assessments (Table 17). Furthermore, 62% of respondents agreed to monthly educational events lasting 1–2 hours (Tables 18 and 19). The main factors influencing the choice of online educational events included the topic, timing, availability of recorded sessions, and event cost (Table 20).

#### Factors Influencing Education

The most frequently preferred topics included pharmacotherapy for specific diseases, teaching and research skills in clinical pharmacy, new drug developments, the role of artificial intelligence in healthcare, and antimicrobial stewardship (Table 21). According to the ICD-11, the most commonly reported areas of interest were endocrine, nutritional, and metabolic diseases; respiratory and circulatory diseases; mental, behavioural, or neurodevelopmental disorders; and infectious or parasitic diseases (Table 22).

### Involvement in Educational Activities

52 members (64%) expressed interest in providing educational activities within ESCP (Table 24). Additional comments and suggestions from respondents are presented in Tables 23 and 25.

### Discussion

For over 50 years, the ESCP has played a significant role in advancing the professional development of clinical practitioners, researchers, and educators. Through a variety of educational initiatives, such as symposia, workshops, and webinars, the ESCP has steadfastly supported its members' continuous learning and skill enhancement in both in-person and online formats, reinforcing their confidence in the organisation's commitment to their growth.

The questionnaire responses were predominantly from pharmacist practitioners rather than researchers. The majority of respondents worked in community pharmacies, hospital pharmacies, or clinical pharmacy departments, with fewer respondents from academic institutions. These findings may reflect differences in the interest in educational activities provided by the Society and the need for continuous education.

While ESCP-organised events are a valued membership benefit, their visibility and awareness may need enhancement. The audience's preferred means of communication regarding these events is via email, a traditional and effective method, while social media platforms like LinkedIn, Facebook, and X are of lesser importance, as reported by the respondents. New communication methods might need to be considered to inform and attract new members, and constant mail reminders could also be beneficial in achieving an increased audience.

Despite the fact that ESCP offers a variety of free educational benefits, such as webinars, SIG events, and access to the IJCP, some members have identified cost as a barrier. This suggests a potential lack of awareness regarding the full spectrum of member benefits, highlighting the need for more comprehensive informational and promotional efforts, such as during webinars or annual events, to ensure all members are fully aware of the value of their membership.

Time constraints were frequently cited as a barrier to participation in various activities. Given that ESCP members are located worldwide, offering recorded sessions or hybrid event formats could improve accessibility and participation rates for members regardless of the time zone.

When it comes to educational preferences, respondents indicated that the interactive nature of educational activities – such as workshops and group discussions – was more important than receiving certificates of completion. This finding underscores the value that ESCP members place on practical learning experiences and direct engagement with instructors and peers, over and above formal recognition, such as certificates. Moreover, this emphasis on practical learning experiences also validates the current approach of the ESCP in providing interactive educational activities.

This study has some limitations. The questionnaire had a relatively low response rate (less than 20%) and the results obtained may not fully represent the entire community of the ESCP. Confirming receipt of the invitation and addressing active dismissals could enhance the validity of the results, as well as evaluate the effectiveness of the communication platforms used. Moreover, although the questionnaire was addressed only for the ESCP members, it is possible that non-members acquired the link and took part in the study. This suspicion was derived from the fact that a high number of respondents were from one country, however

their responses were rather equally distributed among the others. It is also possible that the questionnaire was more likely to be completed by those who were already engaged in activities provided by the ESCP and had more positive attitude towards them. The questionnaire evaluated the educational needs in general, however did not fully evaluate the content and the quality of the events organised. So far, only webinars have quality evaluation forms sent to participants, which the organising group then evaluates to improve the next events. Addressing these limitations in future activities could lead to more comprehensive and accurate insights into the educational needs and preferences of current and potentially future ESCP members.

In conclusion, while the ESCP has made significant strides in providing educational opportunities for its members, increasing the visibility of events, improving access to on-demand content, and addressing barriers such as time and information dissemination could further enhance member engagement and participation in the ESCP educational activities. This commitment to continuous improvement should give members hope for an even better educational experience in the future.

### [Supplementary materials](#)

Table 1. Respondents' distribution according to their geographical area

<b>Country of residency</b>	<b>Number of answers</b>	<b>%</b>
Romania	38	47
Croatia	8	10
Turkey	5	6
Slovak Republic	4	5
Switzerland	3	4
Netherlands	3	3
Norway	2	2
Poland	2	2
United Kingdom	2	2
Argentina	1	1
Belgium	1	1
Canada	1	1
Czech Republic	1	1
Estonia	1	1
Finland	1	1
France	1	1
Germany	1	1
Ireland	1	1
Italy	1	1
Oman	1	1
Portugal	1	1
Slovenia	1	1
Sweden	1	1

Table 2. Respondents' specialization

Professional title	Number of answers	%
Pharmacist	77	95
Pharmacy Technician	1	1
PhD student	1	1
Assistant professor	1	1
Professor	1	1

Table 3. Respondents' job setting

Primary practice setting	Number of answers	%
Hospital – Clinical Pharmacy Department	19	23
Community Pharmacy	19	23
Academia / University	16	20
Hospital Pharmacy	16	20
Policy, Regulation, Industry	4	5
Hospital – other departments	3	4
50 % Hospital and 50% University	1	1
Innovation centre	1	1
Primary care clinic / GP surgery	1	1
Responsible person in a warehouse	1	1

Table 4. Respondents' years of practice

Years of practice	Number of answers	%
11–20 years	27	33
≤ 5 years	25	31
6–10 years	15	19
> 20 years	14	17

Table 5.

Participation in ESCP Annual Symposium or ESCP Spring Workshop?		Participants having suggestions	Participants describing barriers
Yes	35	11	0
No	46	No	46
Suggestions (number of answers): <ul style="list-style-type: none"> <li>- less parallel sessions (2)</li> <li>- new topics e.g. 1) ATB (resistance, AMS, new advances in AM treatment) 2) ageism/deprescribing, 3) Pharmacogenetics, 4) Pharmacotherapy of metabolic syndrome-complex approach including obesity, CVD etc. 5) Pharmacogenomics and pharmacists role, 6) rapid /point of care diagnostics , 7) data analytics and artificial intelligence with algorithms aiding personalised medicine as with genomics, 8) sustainability and the whole green/net zero agenda, 9) consultant pharmacists and their areas together with their outputs i.e. innovations service developments implementation science approaches (2)</li> <li>- accessibility of diapositives for every classroom (1)</li> <li>- availability of abstracts before the event (1)</li> <li>- breaks in workshops (1)</li> </ul>			

<ul style="list-style-type: none"> <li>- certificates for lecturers easier to obtain (1)</li> <li>- certificates of attendance (1)</li> <li>- combining into one big event (1)</li> <li>- destination easy to reach (1)</li> <li>- general discussion after poster / oral sessions (1)</li> <li>- involve more committee members as speakers (1)</li> <li>- positive feedback (1)</li> <li>- recordings on demand (1)</li> <li>- timing (1)</li> </ul>
Barriers for not participating in annual events (number of answers):
<ul style="list-style-type: none"> <li>- time (20)</li> <li>- cost (20)</li> <li>- destination (14)</li> <li>- lack of information about the event (1)</li> <li>- not recognised certificate (1)</li> <li>- no interest (1)</li> </ul>

Table 6.

Have you participated in ESCP Masterclass?	Number of answers	Participants having suggestions	Participants describing barriers
Yes	13	2	0
No	68	0	68
Suggestions (number of answers): <ul style="list-style-type: none"> <li>- new topics (1-how to become a specialist, 2-how to design a practice) (1)</li> <li>- online masterclass (1)</li> </ul> Main barriers for not participating in Masterclass (number of answers): <ul style="list-style-type: none"> <li>- lack of information about the event (26)</li> <li>- time (25)</li> <li>- cost (23)</li> <li>- destination (15)</li> <li>- certificate is not recognisable in my country (6)</li> <li>- no interest (3)</li> <li>- topic (3)</li> </ul>			

Table 7.

Have you participated in ESCP Webinars?	Number of answers	Participants having suggestions	Participants describing barriers
Yes	58	19	0
No	23	0	23
Suggestions (number of answers): <ul style="list-style-type: none"> <li>- positive feedback (7)</li> <li>- time change (5)</li> <li>- new topics (4): 1-different, 2-homeopathy and gemmotherapy, 3-neuroscience, 4-writing protocols, 5-pain management and pharmacotherapy in terminally ill patients, 6-manangement of multi-drug resistant bacterial infections and ways to prevent antibiotic resistance, 7-managing of mental health issues - optimising pharmacotherapy and non-pharmacological measures, 8-TDM</li> <li>- need for certificate that are already available (2)</li> <li>- recording on demand (1)</li> <li>- calendar file for time zone change (1)</li> <li>- increased frequency (1)</li> <li>- complicated registration system (1)</li> </ul> Barriers (number of answers): <ul style="list-style-type: none"> <li>- lack of information about the event (15)</li> </ul>			

- time (9)
- certificate is not recognisable in my country (3)
- cost (free for ESCP members) (2)
- topic (1)

Table 8.

Have you participated in events by ESCP Special Interest Groups (SIGs)?	Number of answers	Participants having suggestions	Participants describing barriers
Yes	11	2	0
No	70	0	70
Suggestions (number of answers): <ul style="list-style-type: none"> <li>- more frequent meeting/proposal (1)</li> <li>- more practical activities (1)</li> </ul> Barriers (number of answers): <ul style="list-style-type: none"> <li>- lack of information about the event (38)</li> <li>- time (28)</li> <li>- topic (7)</li> <li>- certificate is not recognised in my country (4)</li> <li>- social barrier (1)</li> <li>- cost (free for ESCP member) (1)</li> <li>- clinical pharmacy service is not recognised in my country (1)</li> </ul>			

Table 9.

Have you read publications in IJCP, e.g., Best Practice Papers?	Number of answers	Participants having suggestions	Participants describing barriers
Yes	50	3	0
No	31	0	31
Suggestions (number of answers): <ul style="list-style-type: none"> <li>- more frequent proposal (1)</li> <li>- new topics for special issues (2)</li> </ul> Barriers (number of answers): <ul style="list-style-type: none"> <li>- cost (10)</li> <li>- lack of information (9)</li> <li>- topic (6)</li> <li>- language (5)</li> <li>- not doing work on this topic (1)</li> </ul>			

Table 10.

Reasons for participating in ESCP educational events	Extremely important	Important	Moderately important	Slightly important	Not important
To learn new or improve existing knowledge	52	24	4	1	0
To exchange ideas or experience with other colleagues	52	24	4	1	0
To learn new or improve existing skills	49	27	2	2	1
To learn about clinical pharmacy activities in other countries	46	26	6	3	0
To meet experts involved in the event	43	27	10	1	0
To present research results	28	25	16	8	4



To obtain a certificate of attendance	16	25	19	8	13
Because of receiving a financial grant / support for participation	15	12	19	9	26

Table 11.

Other reasons for participating in ESCP educational events	Number of answers
Meeting people / networking	2
Knowledge broadening	1
Learning about latest research	1
ESCP	1

Table 12.

How important are educational activities provided by ESCP in your membership?	Number of answers	%
Extremely important	37	46
Important	35	43
Moderately important	7	9
Slightly important	0	0
Not important	2	2

Table 13.

How would you prefer to be informed about new ESCP educational events?	Number of answers
Email	76
ESCP website	22
LinkedIn	16
Facebook	9
Instagram	6
X (former Twitter)	3

Table 14.

What is your preferred method of education usually?	Number of answers	%
Online	33	41
Live in person	30	37
No preference	18	22

Table 15.

Do you actively seek online education opportunities?	Number of answers	%
Yes, sometimes.	46	57
Yes, frequently.	23	28
No, I wait for an invitation / newsletter.	12	15

Table 16.

<b>Rank your preference for various educational methods</b>	<b>Most liked</b>	<b>Liked</b>	<b>Neutral</b>	<b>Disliked</b>	<b>Most disliked</b>
Practical workshop	47	31	3	0	0
Interactive seminar with group discussion	39	34	7	1	0
Watching short videos	35	34	9	3	0
Reading text	27	22	22	10	0
Watching infographics	26	35	17	2	1
Lecture	24	43	14	0	0
Participating in panel discussion	20	40	19	2	0
Engaging in discussion indirectly (e g , via chat, mobile app) during the event	19	36	20	4	2

Table 17.

<b>With regards to evaluating your own knowledge after an educational event do you prefer:</b>	<b>Number of answers</b>	<b>%</b>
To solve a case problem	34	42
To complete a test	31	38
To answer open question	8	10
I do not want / need knowledge evaluation.	8	10

Table 18.

<b>How frequently would you like to attend educational activities?</b>	<b>Number of answers</b>	<b>%</b>
Monthly	50	62
Self-paced course / on demand	13	16
Yearly	10	12
Weekly	6	7
Few times in a year	1	1
Every 2-3 months	1	1

Table 19.

<b>What is the maximum duration you are willing to spend on an educational activity at one time?</b>	<b>Number of answers</b>	<b>%</b>
1–2 hours	56	69
< 30 min	12	15
2–4 hours	12	15
> 1 day	1	1

Table 20.

<b>When choosing an online educational activity, how important are the following factors</b>	<b>Extremely important</b>	<b>Important</b>	<b>Moderately important</b>	<b>Slightly important</b>	<b>Not important</b>
Topic	63	18	0	0	0
Time of the event	36	35	8	2	0
Access to the event recording available on demand	36	30	12	1	2
Cost	33	34	11	2	1
Abstract of the event	25	37	15	2	2
Lecturer	20	39	16	4	2
Certificate	17	23	21	11	9

Table 21.

<b>What are the primary areas of interest for future participation in ESCP educational events?</b>	<b>Number of answers</b>
Pharmacotherapy of a specific disease	65
Teaching skills in clinical pharmacy	43
New drugs	42
Problem-solving skills	42
Research skills in clinical pharmacy	40
Artificial intelligence in healthcare	37
Antimicrobial stewardship	31
Medication adherence	29
Soft / communication skills in healthcare	29
Pharmacogenetics and personalized medicines	28
New technologies in healthcare	25
Managing skills in healthcare	22
Pharmacokinetics	22
Drug information service	18
Biochemical tests and laboratory medicine	16
Pharmacoeconomics	13

Table 22.

<b>According to the International Classification of Diseases (ICD-11), what are your main areas of interest for future ESCP educational events?</b>	<b>Number of answers</b>
05 Endocrine, nutritional, or metabolic diseases	44
12 Diseases of the respiratory system	43
11 Diseases of the circulatory system	39
06 Mental, behavioural, or neurodevelopmental disorders	34
01 Infectious or parasitic diseases	32

04 Diseases of the immune system	29
08 Diseases of the nervous system	29
13 Diseases of the digestive system	29
14 Diseases of the skin	29
18 Pregnancy, childbirth, or puerperium	28
02 Neoplasms	27
07 Sleep-wake disorders	21
03 Diseases of the blood or blood-forming organs	20
22 Injury, poisoning, or certain other consequences of external causes	17
16 Diseases of the genitourinary system	16
15 Diseases of the musculoskeletal system or connective tissue	13
23 External causes of morbidity	13
20 Developmental anomalies	10
17 Conditions related to sexual health	9
19 Conditions originating in the perinatal period	8
09 Diseases of the visual system	7
10 Diseases of the ear or mastoid process	7
21 Symptoms, signs or findings not elsewhere classified	0

Table 23.

<b>Are there any specific lecturers you are particularly interested in who could deliver educational events?</b>	<b>Number of answers</b>
Rob Horne	2
Ross Tsuyuki	1
Cathrine Mackenzie	1
Infectious diseases and oncology	1
Radiopharmacy	1
Clinical Practitioners	1

Table 24.

<b>Would you like to get involved in providing education for ESCP members?</b>	<b>Number of answers</b>
Yes	42
No	39

Table 25.

<b>Do you have any additional comments or suggestions for the ESCP Education Committee?</b>
Recordings are so important because timing will never suite majority
I don't want to get involved in providing education for ESCP members, just because I am not good on teaching