Utilizing ESPE e-learning to educate Pediatric Endocrinologists in Indonesia: Web-Series on Pediatric Endocrinology and Diabetes (WeSPED), an initiative of the European Society for Paediatric Endocrinology (ESPE) e-learning committee and the Indonesian Pediatric Society (Ikatan Dokter Anak Indonesia-IDAI)

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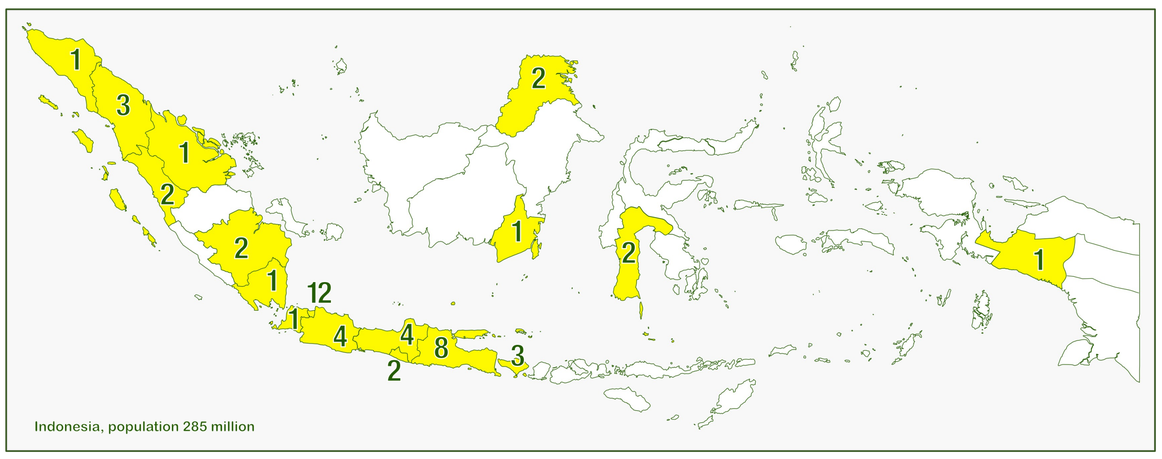
Introduction: The ESPE e-learning website (www.espe-elearning.org) was developed to address gaps in education in pediatric endocrinology and diabetes and was first published online in 2012. Since then, it has been utilized in different settings and applications. Here, we present its utilization in a series of e-learning and e-consultation webinars in collaboration with the Indonesian Pediatric Society (IDAI- Ikatan Dokter Anak Indonesia).

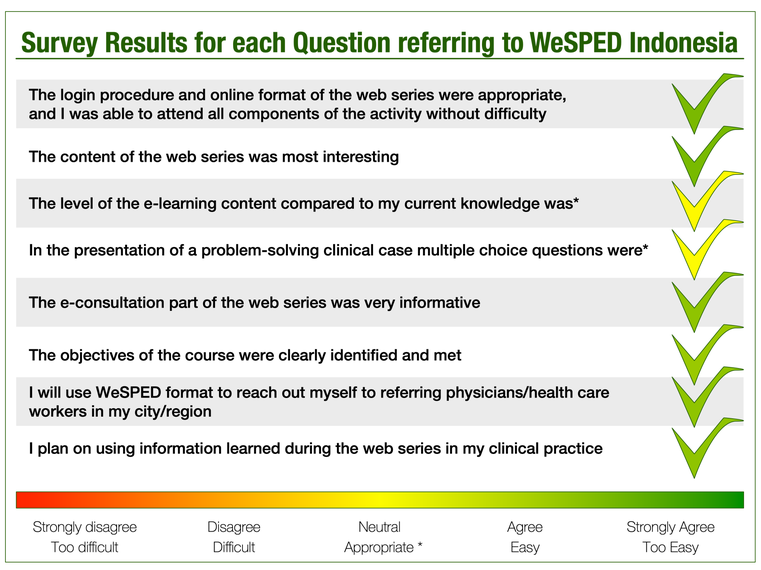
Methods: A local moderator organized the webinars with assistance from the ESPE e-learning committee and facilitated tutor-participant interactions. Each session (lasting 1.5-2 hours) started with discussion of relevant sections of the e-learning website (chapter and/or clinical cases) by an expert tutor on a given topic during which interactive polling kept participants engaged (e-learning component). Subsequently, selected participants presented 2-4 anonymized cases followed by questions for discussion with the tutor (e-consultation component). After the session, a survey was conducted for participants to provide feedback regarding the webinars. Furthermore, the tutor prepared a summary of key messages of the e-learning component and e-consultation discussion and provided recent relevant review papers for further reading by the participants. The platform used was Zoom.

Date	Topic	Country of tutor	Participants (n)
September 3rd, 2021	Bone and Calcium	Netherlands	39
September 24th, 2021	Diabetes mellitus	USA	38
November 5th, 2021	Thyroid	Palestine	34
November 26th, 2021	Growth	Greece	42
December 17th, 2021	Differences of Sex Development	Netherlands	36
March 25th, 2022	Congenital Hyperinsulinism	Netherlands	40
May 20th, 2022	Precocious/delayed puberty	Egypt	40
July 17th, 2022	Pediatric and adolescent gynecology	Australia	43
September 29th, 2022	Hyponatremia	France	36
November 25th, 2022	Obesity	Netherlands	40
January 27th, 2023	Cushing syndrome	Canada	36

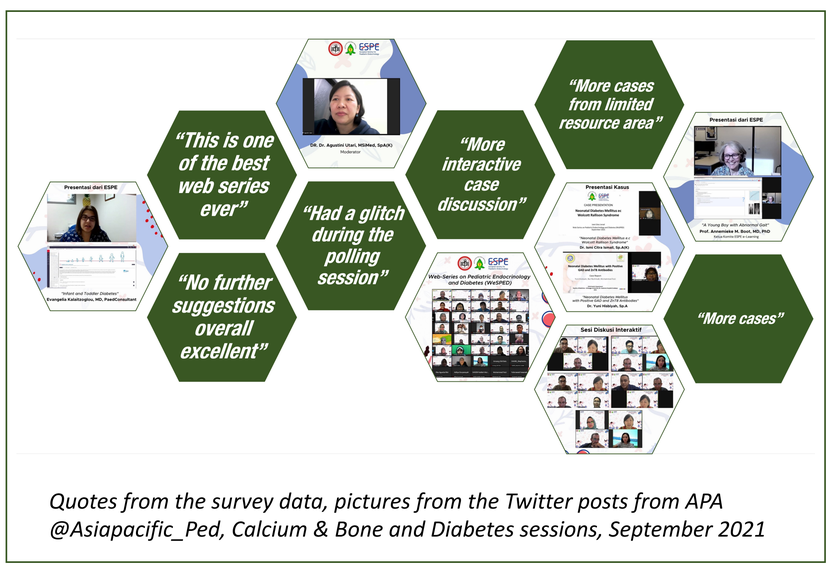
WeSPED series schedule



Webinar participants were from Indonesia (from 17 out of 34 provinces) with the majority being pediatricians or pediatric endocrinologists (28 pediatric endocrinologists, 3 retired pediatric endocrinologists and 2 other experts) , followed by trainees in pediatric endocrinology (17 fellows).



Results:
From September 2021 to January 2023, 11 WeSPED sessions were conducted by 10 tutors (See Table WeSPED series schedule). Topics included calcium and bone, diabetes mellitus, growth, precocious and delayed puberty, differences of sex development (DSD), congenital hyperinsulinism, pediatric and adolescent gynecology amongst others. Attendance ranged from 34 to 43 participants per session from a total of 50 unique participants.



Quotes from the survey data, pictures from the Twitter posts from APA @Asiapacific_Ped, Calcium & Bone and Diabetes sessions, September 2021

Results from 286 survey responses from 11 sessions, revealed that most participants found the content of the sessions was most interesting (47% strongly agree, 48% agree) and that the objectives of the course were clearly identified and met (36 % strongly agree, 57% agree). Additionally, the majority found the e-consultation part of the webinar series to be very informative (41% strongly agree, 49% agree) and agreed (41% strongly agreed, 55% agreed) they plan on using information learned during the web-series in their clinical practice.
The following emerging themes for webinar improvement were identified based on participant survey comments (most common to least common): Encouraging/thankful comments or no further suggestions for improvement, Internet Connection or technology/audio-visual improvement, Too many cases/not enough interaction or discussion, More resource-limited setting content, More clinical cases.

Conclusions: E-learning and e-consultation Web-series (WeSPED) demonstrates that the ESPE e-learning website can be successfully utilized to provide interactive e-learning education and expert consultation in pediatric endocrinology and diabetes in Indonesia. Continuation of WeSPED to overcome inequalities in knowledge and skills along with similar initiatives in other resource limited settings provide opportunities to improve clinical knowledge and clinical practice at low cost.

Acknowledgement
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ESPE e-LEARNING
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