

## Use of mobile-app to collect feedback from undergraduate students posted in Community Medicine

### Dear Editor:

Amidst the rising trends of the use of internet in mobile devices, e-learning has started to find its feet in the delivery of medical education in an innovative, yet needed way [1]. For many years, the internet has been used predominantly in the data analysis collected from different locations, but then due to the development of mobile-based apps even for the data collection activity, the entire field of research has been revolutionized [1-2]. The adoption of such an approach not only saves paper, but even gives the administrators' a real-time access to the collected data, which subsequently expedites even the analysis aspect [1-2].

As a matter of fact, a large number of studies have started to employ mobile-based data collection and the results have been quite encouraging [1-4]. EpiCollect is a mobile-based app, which employs a simple method to create a questionnaire for the data collection and data storage [3]. In-fact, its utility has increased enormously in the field studies, as evidenced by a number of studies in which the mobile-based app has been used [3, 5]. In order to employ the app in the routine activities of the Department of Community Medicine, it was decided to obtain the feedback of the seventh semester students regarding their one month clinical posting.

Initially, 5 faculty members from the department got trained in the use of the app and the knowledge was subsequently passed on to the remaining faculty members and postgraduate students. Then, it was decided to use the app for collection of feedback, before it is being used in the field. Accordingly, a questionnaire was developed to assess the feedback of students regarding different dimensions of the clinical posting. This includes questions pertaining to the content, extent of interaction with the teachers, their level of confidence while presenting clinic-

social cases, any problems in understanding / remembering the content, any suggestions from their side to improve the knowledge/skill delivery, etc.

On the last day of their Clinical Posting (after the End posting assessment, which happens on the second last day), since the last 1 year, for 4 batches (110 students), the feedback was collected. In order to involve the postgraduate students and as a part of capacity building by exposing them to one of the e-learning methods, they were made in-charge of designing and administering the questionnaire, obviously under the guidance of a faculty member. All the seventh semester students filled the questionnaire after downloading the app in their smart phones with or without being anonymous.

In the nutshell, the practice of obtaining feedback in itself was a major step, as till date it was oral & informal. The students enjoyed the act of giving their feedback using the mobile app as they got a chance to share their concerns anonymously or were shy to express in front of other colleagues. In addition, the students' attendance on the feedback days was also more than 90%, suggesting that the majority of the students were happy to be a part of it. From the postgraduate student perspective, as they owned the entire initiative and thus their involvement / enthusiasm in the entire task was quite evident.

The given feedback was subsequently analyzed and corrective measures were taken to benefit the students (viz. conducting weekly class tests, discussing more number of clinic-social cases, giving them tips to remember the topic, discussing important questions, stopping the practice of conducting weekly

seminars, reducing the portions for the formative assessments, etc.). From the department perspective, the pressing needs of the students were identified and it indirectly gave us a chance to introspect. Considering that the preliminary step has been successful, we are trying to expand the use of the app in the field and also to conduct capacity building workshops for faculty members and postgraduate students from different institutions [6].

In conclusion, the use of mobile-based apps for the data collection is an extremely effective way

and is useful even for the prompt data analysis. It is the need of the hour to expand the usage of such apps in the time to come.

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### References

1. Lee LA, Wang SL, Chao YP, Tsai MS, Hsin LJ, Kang CJ, et al. Mobile technology in e-learning for undergraduate medical education on emergent Otorhinolaryngology-head and neck surgery disorders: Pilot randomized controlled trial. *JMIR Med Educ.* 2018; 4(1): e8.
2. Musyimi CW, Mutiso VN, Haji ZR, Nandoya ES, Ndeti DM. Mobile based mhGAP-IG depression screening in Kenya. *Community Ment Health J.* 2018; 54(1): 84-91.
3. Aanensen DM, Huntley DM, Feil EJ, al-Own F, Spratt BG. EpiCollect: linking smartphones to web applications for epidemiology, ecology and community data collection. *PLoS One.* 2009; 4(9): e6968.
4. Eddens KS, Fagan JM, Collins T. An interactive, mobile-based tool for personal social network data collection and visualization among a geographically isolated and socioeconomically disadvantaged population: Early-stage feasibility study with qualitative user feedback. *JMIR Res Protoc.* 2017; 6(6): e124.
5. Aanensen DM, Huntley DM, Menegazzo M, Powell CI, Spratt BG. EpiCollect+: linking smartphones to web applications for complex data collection projects. *F1000Res.* 2014; 3:199.
6. Sri Balaji Vidyapeeth. International Health Research Convention 2019-Research in health sciences across the globe; 2019. Available from: <http://www.convention.sbv.ac.in/> [cited 2019 Feb 23].

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